

ORDER NO.ODSD010304C2

Service Manual

DVD Player

DVD-RA71

Colour

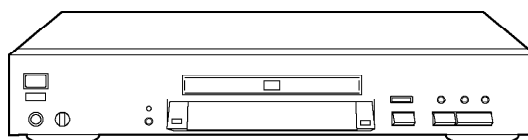
(N).....Shampagne Gold Type

Area

E.....Europe.

EB.....Great Britain.

EG.....Germany and Poland, etc.



SPECIFICATIONS

Specifications

Power supply:	AC220-240 V, 50 Hz
Power consumption:	19 W
Dimensions:	430 (W)×265 (D)×99 (H) mm (excluding protrusions)
Mass:	3.5 kg
Signal system:	PAL 625/50, PAL 525/60, NTSC
Operating temperature range:	+5 to +35°C
Operating humidity range:	5-90 % RH (no condensation)
Discs played:	DVD-Video DVD-Audio CD-Audio (CD-DA) Video CD CD-R/CD-W (CD-DA, Video CD format discs)
Video output:	
Output level:	1 Vp-p (75 Ω)
Output connector:	Pin jack (2 system)/AV1/AV2
S video output:	
Y output level:	1 Vp-p (75 Ω)
C output level:	NTSC; 0.286 Vp-p (75 Ω) PAL; 0.300 Vp-p (75 Ω)
Output connector:	S terminal (1 system)/AV1

RGB video output:

R output level: 0.7 Vp-p (75 Ω)
G output level: 0.7 Vp-p (75 Ω)
B output level: 0.7 Vp-p (75 Ω)
Output connector: AV1
Number of connectors: 1 system

Audio output:

Output level: 2 Vrms (1 kHz, 0 dB)
Output connector: Pin jack/AV1/AV2
Number of connectors:
2ch: 1 system
5ch discrete output (5.1ch): 1 system

Audio signal output characteristics:

(1) Frequency response:

● DVD (linear audio): 4 Hz-22 kHz (48 kHz sampling)
4 Hz-44 kHz (96 kHz sampling)
4 Hz-88 kHz (192 kHz sampling)
● CD audio: 4 Hz-20 kHz

(2) S/N ratio:

● CD audio: 115 dB

(3) Dynamic range:

● DVD (linear audio): 103 dB
● CD audio: 99 dB

(4) Total harmonic distortion:

● CD audio: 0.002 %

Digital audio output:

Optical digital output: Optical terminal
Coaxial digital output: Pin jack

PHONES jack:

Pickup

Wave length: 658 nm/790 nm
Laser power: CLASS 2/CLASS 1

NORSK

Pickup

Bølgelengde: 658 nm/790 nm
Laser-styrke: Ingen farlig stråling
sendes ut KLASSE 2/KLASSE 1

Power consumption in standby mode:

approx. 4 W

Notes:

Specifications are subject to change without notice.
Mass and dimensions are approximate.

Unauthorized copying and distribution is a violation of law.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. SAFETY PRECAUTIONS

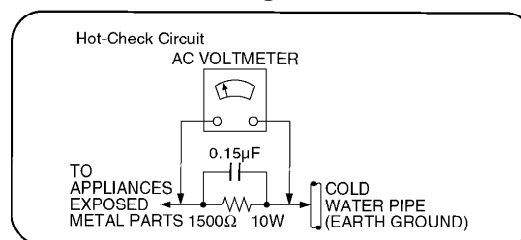
1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1\text{M } \Omega$ and $5.2\text{M } \Omega$. / When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

Figure 1



1.1.2. LEAKAGE CURRENT HOT CHECK (See [Figure 1.](#))

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in **Figure 1**.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum

foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
 4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
 5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
 6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
 7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- Caution**
- Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by Δ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3. Precaution of Laser Diode

This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.
Wave length:780 nm

Wave length:780 nm

Maximum output radiation power from pickup: 100 μ

W/VDE

Laser radiation from the pickup lens is safety level, but be sure the followings:

1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode.

Im eingeschalteten Zustand wird unsichtbare
 Leserstrahlung von der Laserinheit adgestrahlt.

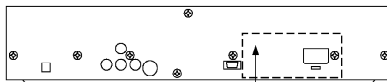
Wellenlänge: 780 nm

Maximale Strahlungsleistung der Lasereinheit: 100 μ

W/VDE

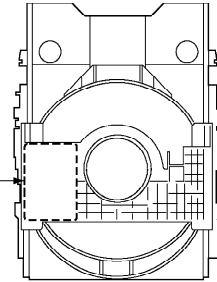
Die Strahlungen der Lasereinheit ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.



**Product complies with DHHS
rules 21 CFR Subchapter J in
effect at date of manufacture.
Matsushita Electric Industrial
Co., Ltd.
Kadoma, Osaka, Japan**

ANGER	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AUGDÄR DIRECT EXPOSURE TO BEAM.	IEA 21 CEE
CAUTION	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AUGDÄR DIRECT EXPOSURE TO BEAM.	IEA 21 CEE
ATTENTION	HAUTERREINER LASER STRAHLEN UND INVISIBLE LASER CAS D'EXPOSITION EXPOSITION MANUELLE AU LASER.	IEA 21 CEE
ADVARSEL	SYNLYG OG USYNLIG LASERSTRÅLING, VED ÅBNING UDSÆTTES TIL LASERSTRÅLING.	IEA 21 CEE
VARO!	AVASTAUSTA OIKI LASITTA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSTRÄLÄÄ. AVASTAUSTA OIKI LASITTA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSTRÄLÄÄ.	IEA 21 CEE
VAROJING	SYNLYG OIKI OYNNAL LASERSTRÄLÄÄ, VED ÅBNING UDSÆTTES TIL LASERSTRÄLÄÄ.	IEA 21 CEE
ADVARSEL	SYNLYG OG USYNLIG LASERSTRÅLING, VED ÅBNING UDSÆTTES TIL LASERSTRÅLING.	IEA 21 CEE
VORSICHT	SICHTBARE UND UNSICHTBARE LASERSTRÄHLUNG, BEI ÖFFNUNG NICHT DIREKT DER STRÄHLE AUSSETZEN.	IEA 21 CEE
注意	一、打开时有可能受到不可见激光辐射，避免激光束直接照射。	IEA 21 CEE
注意	一、打开时有可能受到不可见激光辐射，避免激光束直接照射。	IEA 21 CEE



CAUTION!

THIS PRODUCT UTILIZES A LASER.

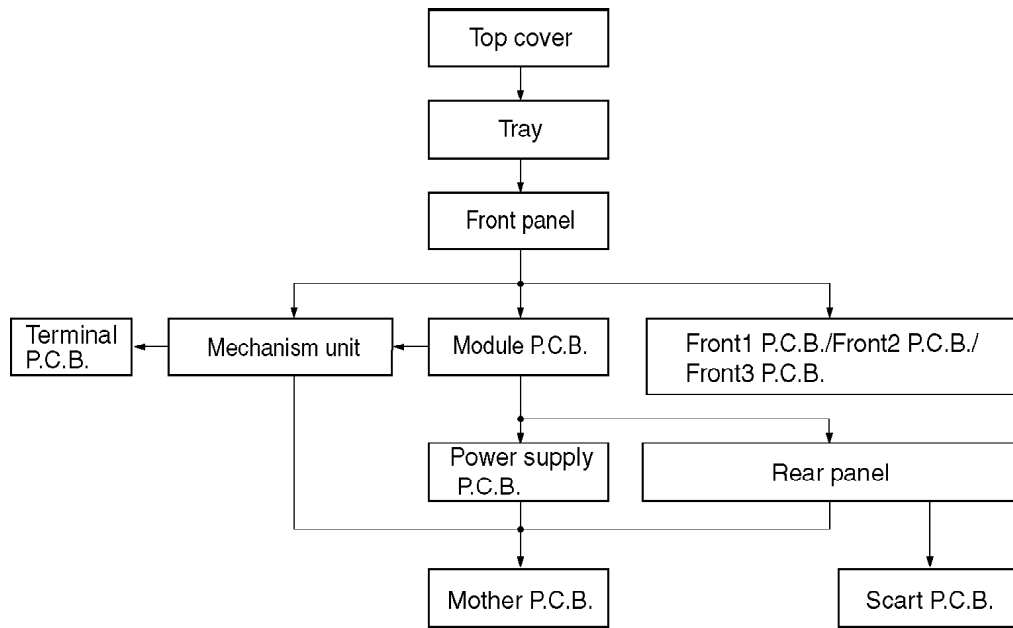
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

4. General Description

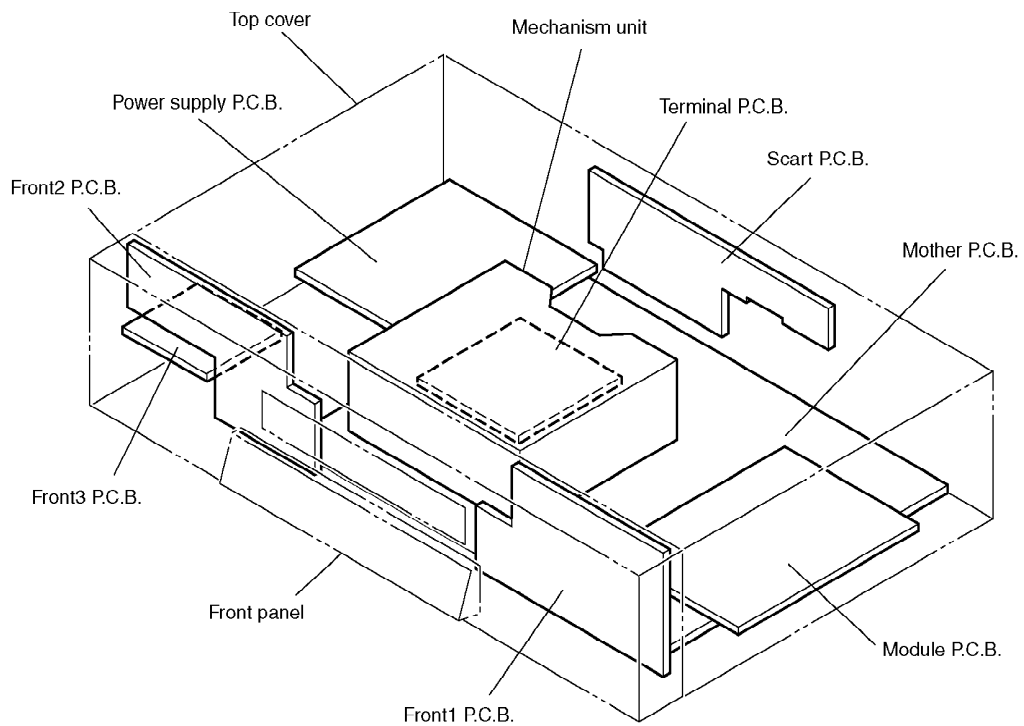
4.1. Operating instructions

5. Disassembling the Casing and Checking P.C.B.s

5.1. Disassembly Procedure

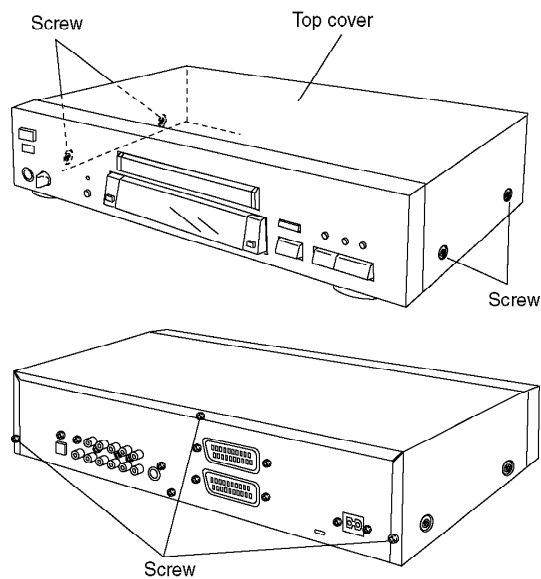


5.2. Casing Parts and P.C.B. Positions



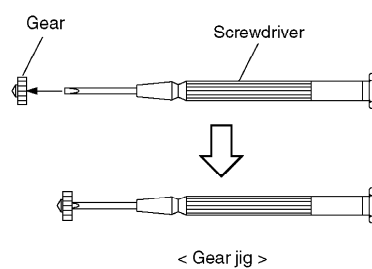
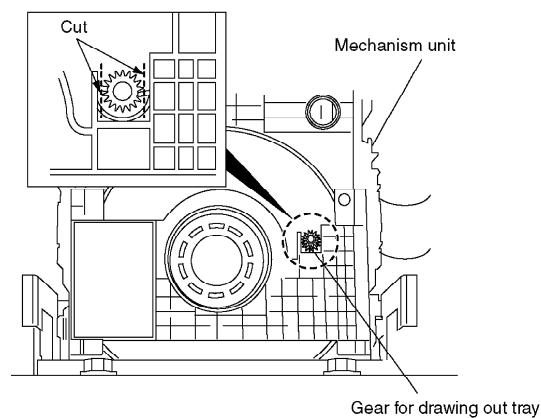
5.3. Top Cover

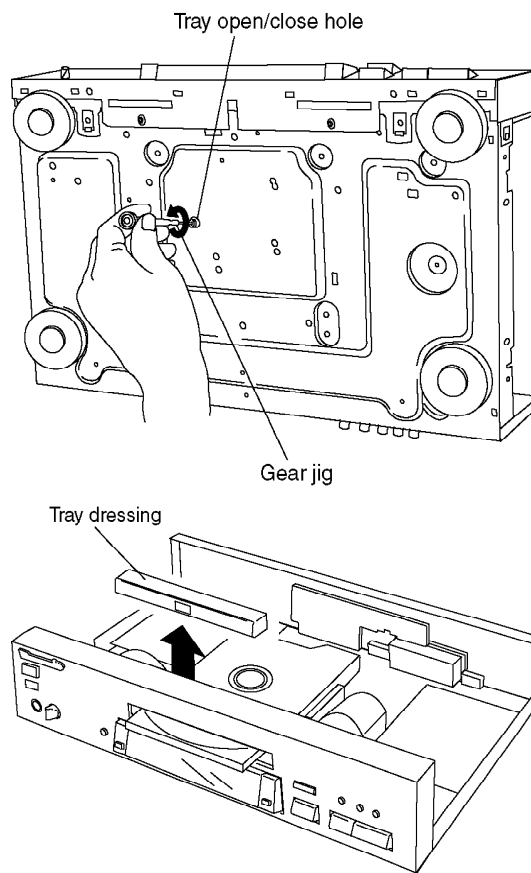
1. Unscrew the screws.



5.4. Tray

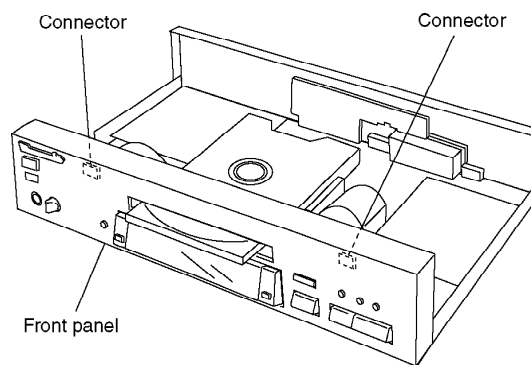
1. Pull the tray out of the mechanism unit. Remove the gear and install it onto a screwdriver to make a gear jig.
2. Insert the gear jig into the tray open/close hole.
3. Turn the gear jig counterclockwise to open the tray.
4. Remove the tray dressing from the tray section.





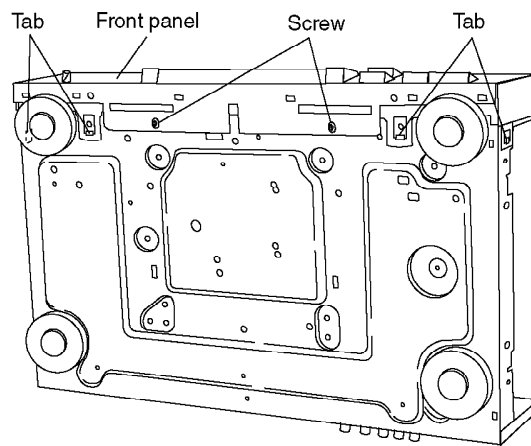
5.5. Front Panel

1. Remove the connectors.



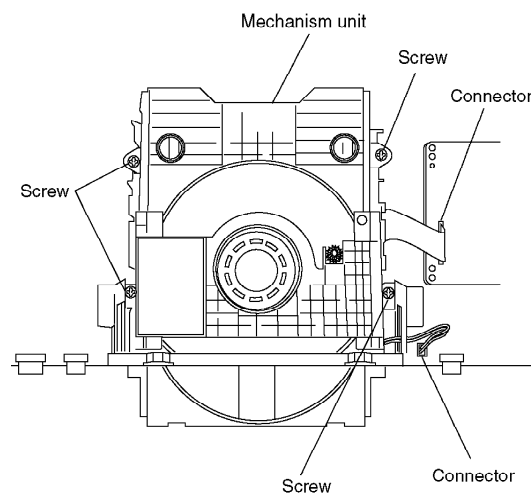
2. Unscrew the screws.

3. Remove the tabs.



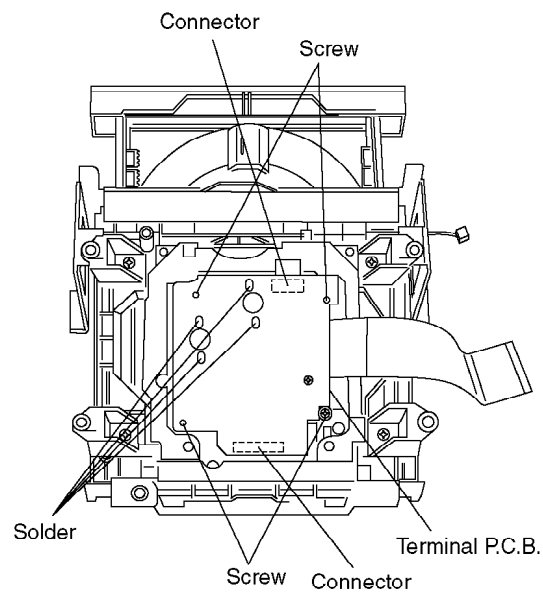
5.6. Mechanism Unit

1. Unscrew the screws.
2. Remove the connectors.
3. Pull out the mechanism unit vertically.



5.7. Terminal P.C.B.

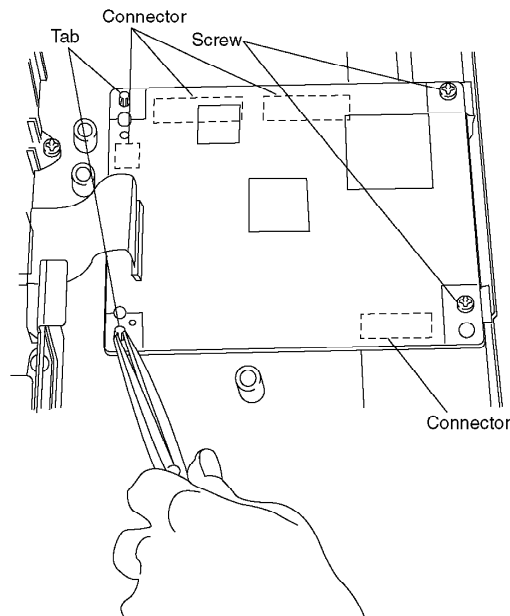
1. Unscrew the screws.
2. Remove the solders.
3. Remove the connectors.



< Mechanism unit bottom >

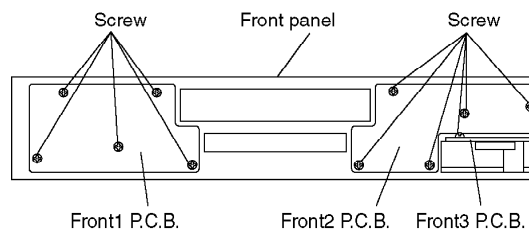
5.8. Module P.C.B.

- 1. Unscrew the screws.**
- 2. Remove the connectors.**
- 3. Press each tab with the nipper to pull out the module P.C.B. vertically.**



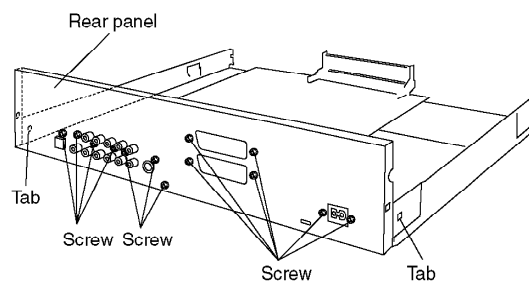
5.9. Front-1 P.C.B., Front-2 P.C.B., and Front-3 P.C.B.

1. Unscrew the screws.
2. Release the tabs.



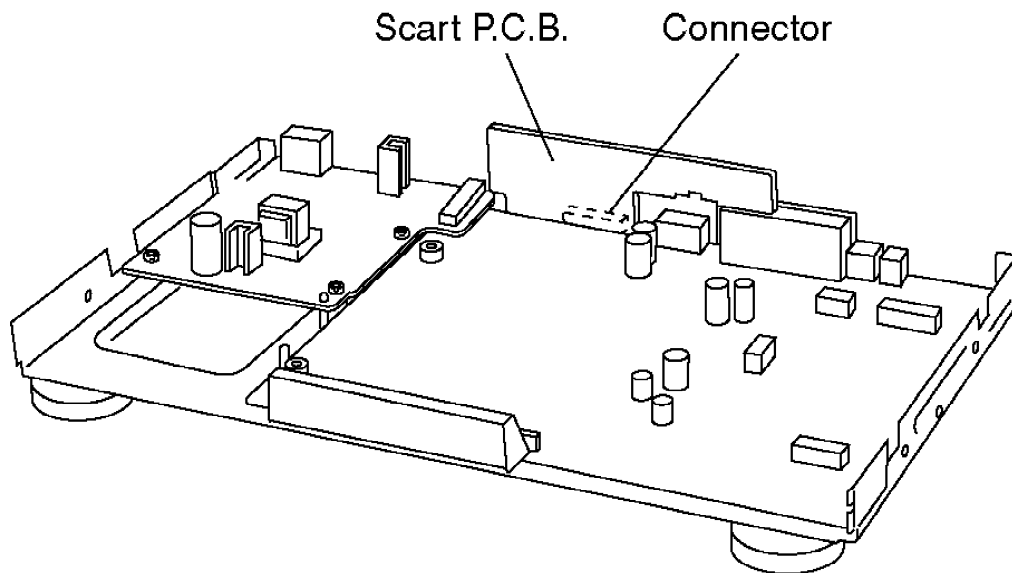
5.10. Rear panel

1. Unscrew the screws
2. Release the tabs.



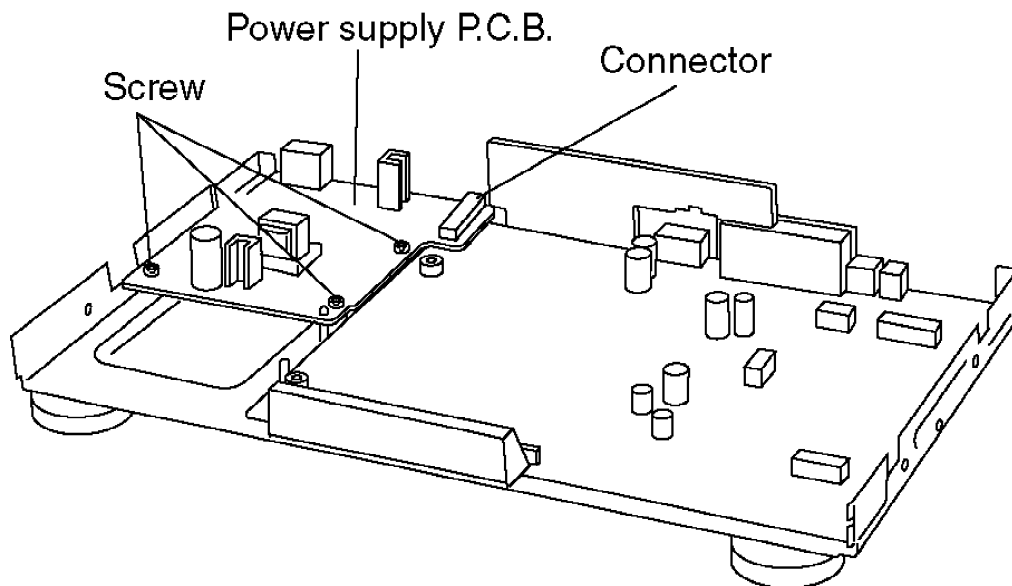
5.11. Scart P.C.B.

1. Remove the connectors.



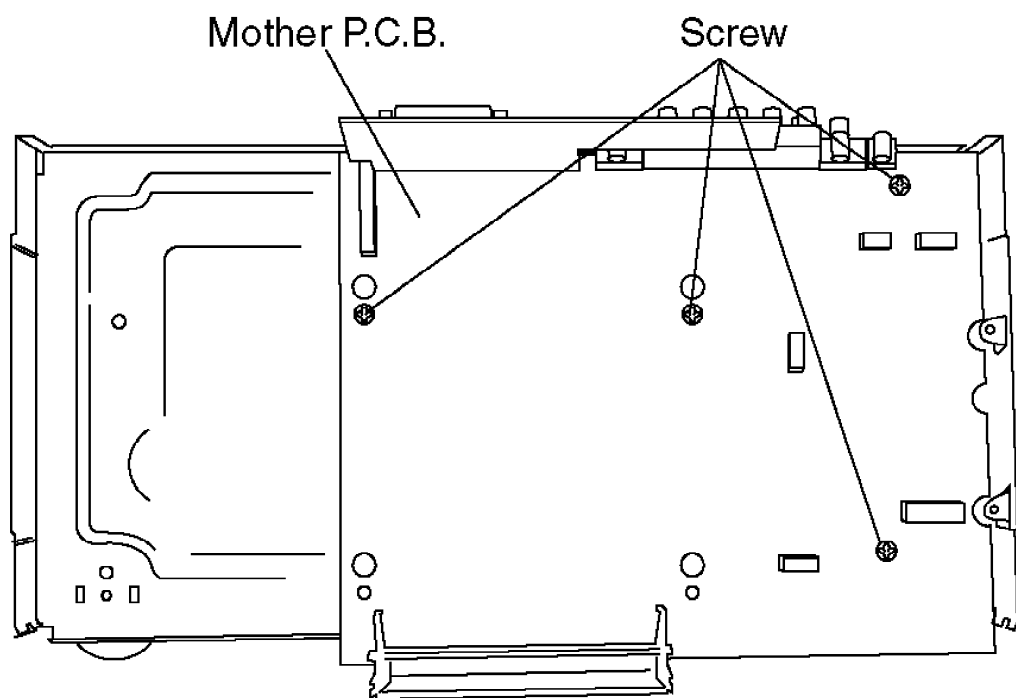
5.12. Power supply P.C.B.

1. Unscrew the screws.
2. Remove the connectors.



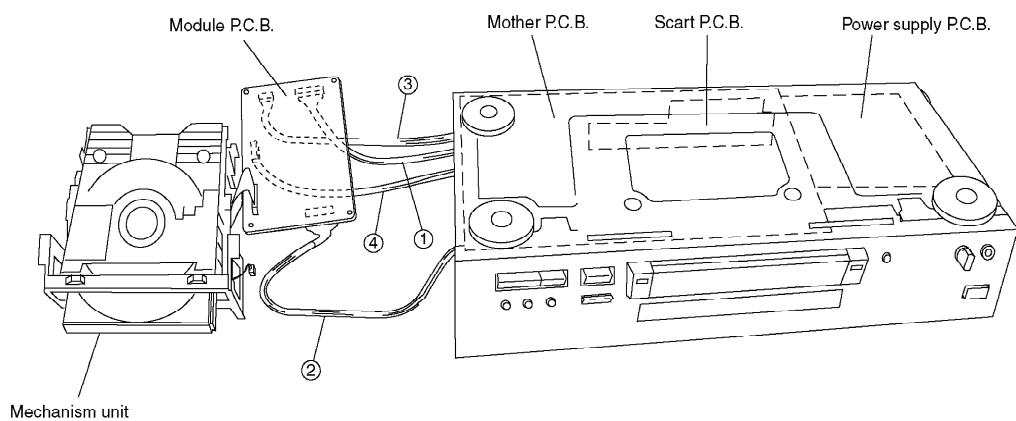
5.13. Mother P.C.B.

1. Unscrew the screws.

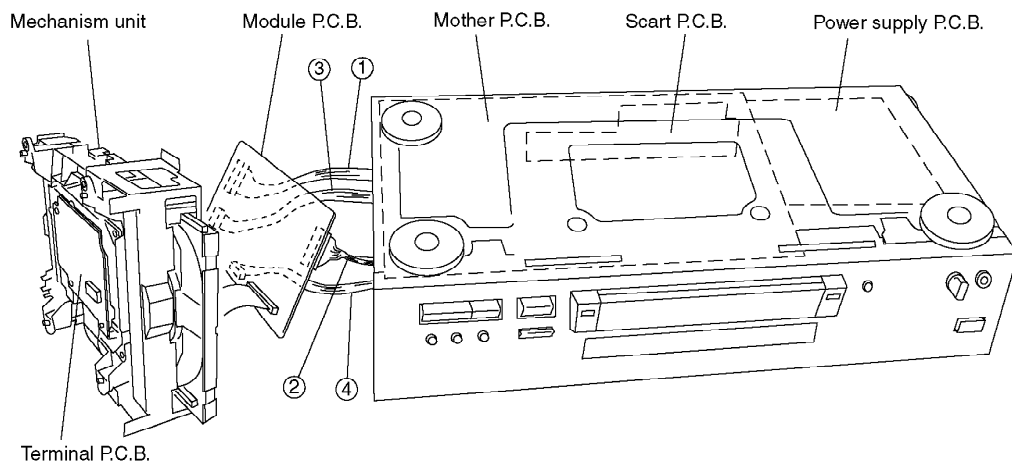


5.14. Servicing Position

5.14.1. Servicing position of the Module P.C.B.



5.14.2. Servicing position of the Terminal P.C.B.



5.14.3. List of the Extention Cables

①	JGS0098	26pins	PS4201 (Module P.C.B.)-PP4201 (Mother P.C.B.)
②	VUC8026	14pins	PS6202 (Module P.C.B.)-PP6001 (Mother P.C.B.)
③	RFKZ0097	10pins	PS3201 (Module P.C.B.)-PP3201 (Mother P.C.B.)
④	VUC8026	14pins	PS6251 (Module P.C.B.)-PP1102 (Mother P.C.B.)

6. PREVENTION OF STATIC ELECTRICITY DISCHARGE

The laser diode in the traverse unit (optical pickup) may brake down due to static electricity of clothes or human body. Use due caution to electrostatic breakdown when servicing and handling the laser diode.

6.1. Grounding for electrostatic breakdown prevention

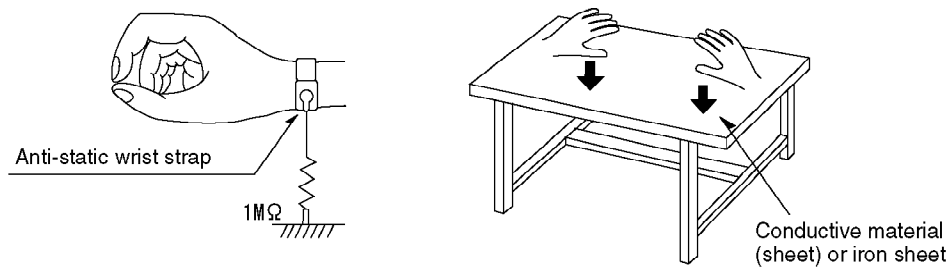
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

6.1.1. Worktable grounding

1. Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.

6.1.2. Human body grounding

1. Use the anti-static wrist strap to discharge the static electricity form your body.



6.1.3. Handling of optical pickup

1. To keep the good quality of the optical pickup maintenance parts during transportation and before installation, the both ends of the laser diode are short-circuited. After replacing the parts with new ones, remove the short circuit according to the correct procedure. (See this Technical Guide.)
2. Do not use a tester to check the laser diode for the optical pickup. Failure to do so will damage the laser diode due to the power supply in the tester.

6.2. Handling Precautions for Traverse Unit (Optical Pickup)

1. Do not give a considerable shock to the traverse unit (optical pickup) as it has an extremely high-precise structure.
2. When replacing the optical pickup, install the flexible cable and cut its short land with a nipper. See the optical pickup replacement procedure in this Technical Guide. Before replacing the traverse unit, remove the short pin for preventing static electricity and install a new unit. Connect the connector as short times as possible.
3. The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the cable.
4. The half-fixed resistor for laser power adjustment cannot be adjusted. Do not turn the resistor.

7. OPTICAL PICKUP SELF-DIAGNOSIS AND REPLACEMENT PROCEDURE

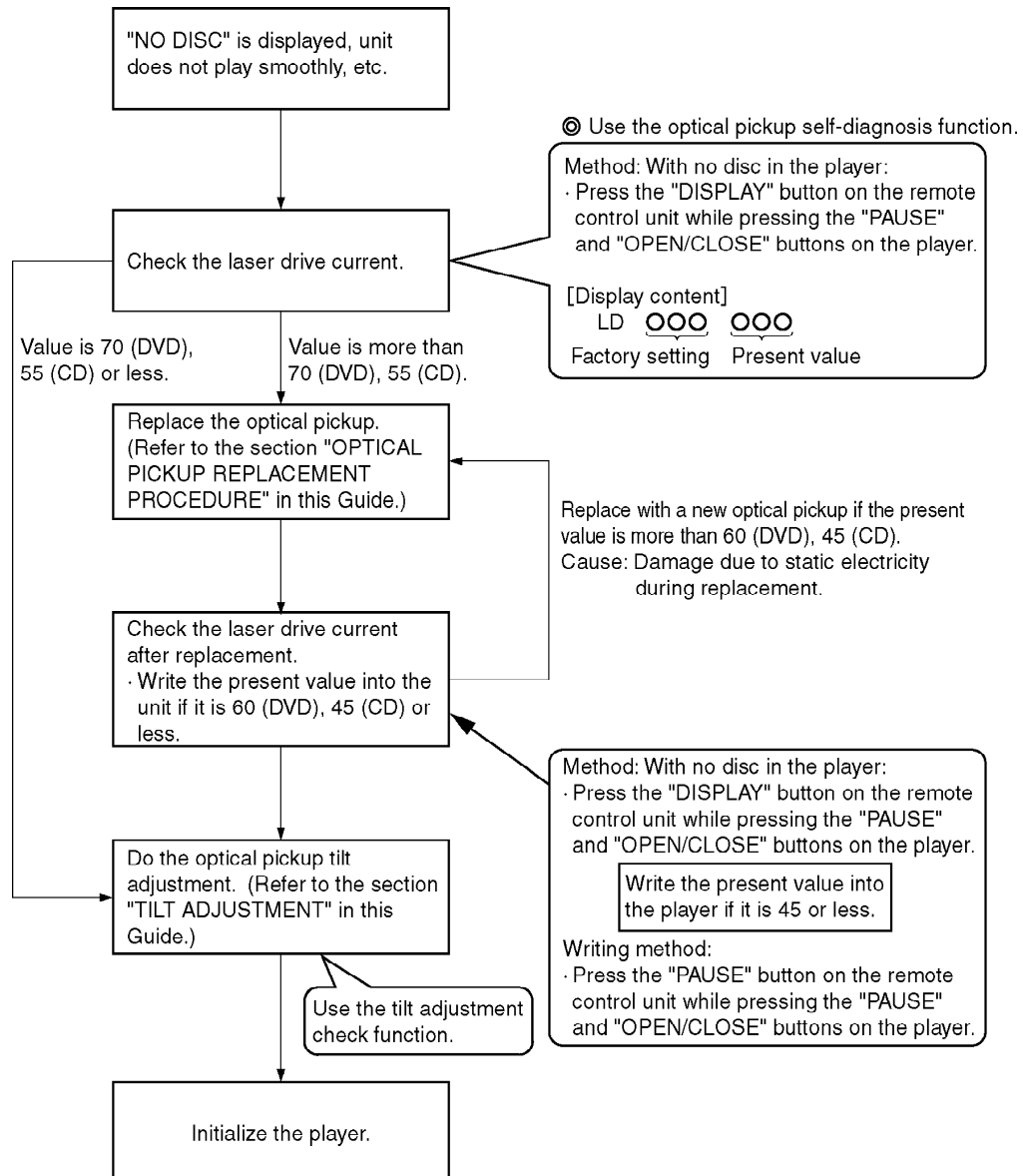
7.1. Self-diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment. Be sure to use the self-diagnosis function before replacing the optical pickup

when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)



7.2. Cautions to Be Used Before Replacing the Optical Pickup Unit and Spindle Motor Assembly

Before replacing the optical pickup unit and spindle motor assembly, check the total using hours for each of them. The checking method is as follows:

	Operating state & Key operation	Display
Using hours of CD laser	Press "PAUSE", FWD-SKIP" and "5" on the remote control in this order while the unit is stopped	T1_xxxx_yyyyyyy: total hours are displayed by 4-digit figures (unit: 10 hours).
Using hours of DVD laser	Press "PAUSE", FWD-SKIP" and "5" on the remote control in this order while the unit is stopped	T1_xxxx_yyyyyyy: total hours are displayed by 4-digit figures (unit: 10 hours).
Using hours of SP motor	Press "PAUSE", FWD-SKIP" and "6" on the remote control in this order while the unit is stopped	T2_xxxxxxx: total hours are displayed by 4-digit figures (unit: 10 hours).
Resetting using hours of CD and DVD lasers (Simultaneous resetting)	Press "PAUSE", FWD-SKIP" and "6" on the remote control in this order while the unit is stopped	T1_0000_0000
Resetting using hours of the motor	Press "PAUSE", FWD-SKIP" and "6" on the remote control in this order while the unit is stopped	T2_0000

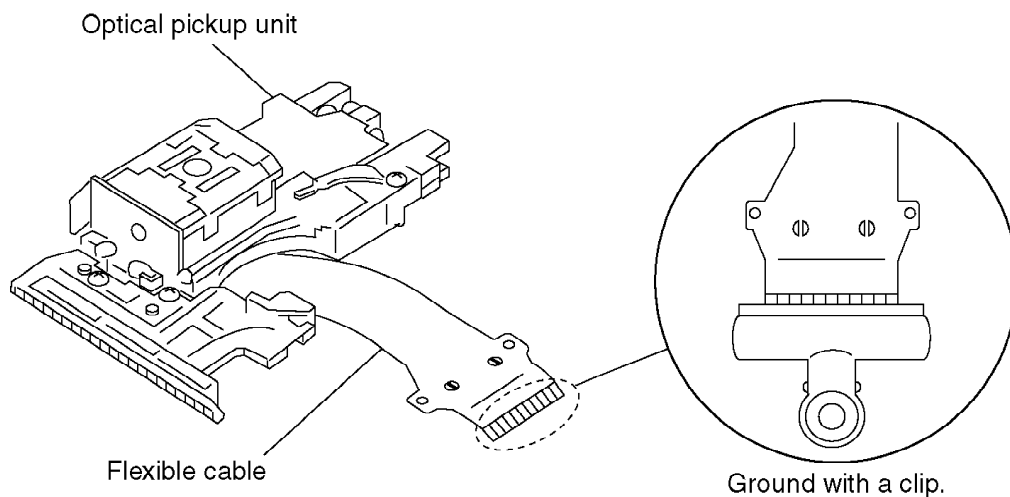
Cautions to be taken when replacing the optical pickup

The optical pickup may break down due to the static electricity of human body. Take proper protection measures against static electricity before repairing the parts around the optical pickup. (See the page describing the PREVENTION OF STATIC ELECTRICITYDISCHARGE.)

- 1. Do not touch the areas around the laser diode and actuator.**
- 2. Do not judge the laser diode with a tester. (The tester will be damaged easily.)**
- 3. It is recommended to use a destaticized soldering iron for short-circuiting or removing the laser diode. (Recommended soldering iron) HAKKO ESD Product**
- 4. Solder the land of the flexible cable in the optical pickup.**

Note:

- When using a soldering iron which is not destaticized, short-circuit the terminal face of the flexible case with a clip. After that, short-circuit the land.**
- After the repairing work is completed, remove the solder according to the correct procedure shown in this Technical Guide.**



8. SELF-DIAGNOSIS FUNCTION AND SERVICE MODES

8.1. Self-diagnosis Function and Service Modes

Improving the self-diagnosis function

The self-diagnosis function in our DVD player currently in use is improved as follows:

Our DVD player currently in use

UHF error display
The latest error storage function
n=1

Jitter/read error display

Laser drive current display
For DVD

Our new DVD

UHF error display
The latest error storage
n=20

Jitter/read error display
Focus drive value display

Laser drive current display
For DVD/CD

ADSC internal RAM data display

Servo process display

Total operation time display
SP motor
Laser (DVD/CD)

The storage capacity is increased.

The focus drive current value can be displayed.

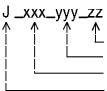
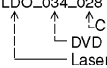
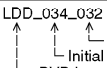

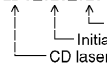
The servo learning value stored in the RAM data inside the ADSC (servo controller) IC is displayed.

Mainly in the initial starting operation period of the player, a number is allotted to the servo process of each step, and the process of the starting operation can be displayed.

The operation times of SP motor and the laser (both for the DVD and CD) can be displayed.

8.2. Service mode table

Pressing various button combinations on the player and remote control unit can activate the service modes.

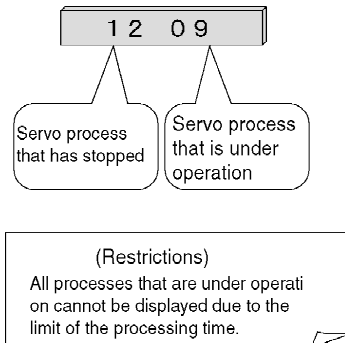
Item	Player mode and button combination	Function	Display	Cancellation method
Jitter check	In PLAY mode, press PAUSE and OPEN buttons on the player, and "5" button on the remote control unit.	Jitter check Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.	 <p>Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.</p>	Press STOP or OPEN button.
Error code check	In ** mode, press PAUSE and OPEN buttons on the player, and "0" button on the remote control unit. * With pointing of cursor up and down on display, the panel controller switches serial number of history and sends out the command accordingly.	Error code check The latest error code stored in EEPROM is displayed.	Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: → nn UXX Error code = 0 x DBXX is expressed: → nn HXX Error code = 0 x DXXX is expressed: → nn FXXX Error code = 0 x 0000 is expressed: → nn F--- * "nn" denotes the serial number of history.	Cancelled automatically 5 seconds later.
Initial setting of laser drive current	In STOP mode, press PAUSE and OPEN buttons on the player, and PAUSE button on the remote control unit.	Initial setting of laser drive current Initial current value for each of DVD laser and CD laser is separately saved in EEPROM.	 <p>The value denotes the current in decimal notation. The above example shows the initial current is 34mA and 28mA for DVD laser and CD laser respectively when the laser is switched on.</p>	Cancelled automatically 5 seconds later.
DVD laser drive current measurement	In STOP mode, press PAUSE and OPEN buttons on the player, and DISPLAY button on the remote control unit.	DVD laser drive current measurement DVD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when the primary power is switched off.)	 <p>The value denotes the current in decimal notation. The above example shows the initial current is 34mA and the measured value is 32mA.</p>	Cancelled automatically 5 seconds later.
ADSC internal RAM data check	In ** mode, press PAUSE and OPEN buttons on the player, and RETURN button on the remote control unit.	ADSC internal RAM data check ADSC internal RAM data is read out and displayed. Change the address with CLEAR key operation to show the data for 11 addresses.	 <p>The value is shown in hexadecimal notation. The above example shows the data in ADSC address DFAh is 6901h.</p>	Press STOP or OPEN button.
Servo process display	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "7" button on the remote control unit.	Servo process display The servo process from STOP to ACCESS is displayed.	_____	Turn off the secondary power.
CD laser drive current measurement	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and DISPLAY button on the remote control unit.	CD laser drive current measurement CD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when the primary power is switched off.)	 <p>The value denotes the current in decimal notation. The above example shows the initial current is 28mA and the measured value is 26mA.</p>	_____

Item	Player mode and button combination	Function	Display	Cancellation method
Version display	In STOP mode, press PAUSE and OPEN buttons on the player, and "7" button on the remote control unit.	Version display		Cancelled automatically 5 seconds later.
Lighting of display tube	In ** mode, press PAUSE and OPEN buttons on the player, and "9" button on the remote control unit.	Lighting of display tube	_____	Press STOP or OPEN button.
Dealer's lock	In STOP mode, press STOP button on the player, and POWER button on the remote control unit.	Dealer's lock The lock is switched ON or OFF. When dealer's lock is ON, it prohibits switching off of the secondary power and tray opening. When the lock is switched, its ON/OFF status is stored in EEPROM.	<p>· "LOCKED" sign appears when dealer's lock is switched on, or when secondary power key or tray opening key is pressed while the lock is on.</p> <p>· "UNLOCKED" sign appears when dealer's lock is switched off.</p>	Repeat the same operation.
Initialization	In STOP mode, press PAUSE, BWD-SKIP and OPEN buttons on the player for 3 seconds or longer.	Initialization User settings are cancelled and player is initialized to factory setting.	"INITIALIZED"	
Region display	In STOP mode, press PAUSE and OPEN buttons on the player, and "6" button on the remote control unit.	Region display		Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Timer 1 check	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "5" button on the remote control unit.	Timer 1 check Laser operation timer Operation time is measured separately for DVD laser and CD laser.	T1_1234_5678 Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 1 reset	While displaying Timer 1 data, press STOP and FWD-SKIP buttons on the player, and "5" button on the remote control unit.	Timer 1 reset Laser operation timer Operation time of both DVD laser and CD laser is reset all at once.	T1_0000_0000	Cancelled automatically 5 seconds later.
Timer 2 check	In STOP mode, press PAUSE and FWD-SKIP buttons on the player, and "6" button on the remote control unit.	Timer 2 check Spindle motor operation timer	T2_1234 Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 2 reset	While displaying Timer 2 data, press STOP and FWD-SKIP buttons on the player and "6" button on the remote control unit.	Timer 2 reset Spindle motor operation timer	T2_0000	Cancelled automatically 5 seconds later.

8.3. Servo Process Flow

Specification of the servo process display in the starting flow



Starting flow	Range of the servo process numbers	Processing items	
		Number	Contents of each process
START			
Initial setting Tray control	00	00	Each initial setting
TRV initial movement	01	01	TRV initial movement
Disc detection	02~08	02	Initial setting in FE system
		05	Detecting LD ON HALF
		08	Detecting CD LD ON
Disc type distinction	02~08	02	Initial setting in FE system
Focus servo	10~13	12	Focus ON
		13	FBAL adjustment
Tracking servo	14~15	15	Tracking ON
Gain learning	17	17	Gain adjustment in ADSC focus system
ID read	18~1A	19	DBAL/equalizer adjustment
		1A	ID read

8.4. Servo Process Display Mode

In starting operation of the player, a number is allotted to each servo process so that the operation of each step can be seen.

The relation between the process and the displayed number are as follows:

Number allotment to the servo process

Process classification	Each processing item	Description	Process number
Initial start process	Initial start	The process starts after the tray is loaded. (The state is changed to "READY" or PREPARE".)	0~40
	Secondary learning	Servos for the DVD-DL 1st layer and the CD-DA double speed are learned in this step.	50~7F
Restart process	Restart	When a user operates in the "READY" state, each servo is turned on.	80~9F
Seek process	Seek	The optical pickup is moved to the disc destination in this process.	A0~BF
Repair process	Recover		
	(Error check)	An error is searched in the PLAY/SEEK state.	C1~C3
	(Attention)	An error is recovered following the attention error interrupt from the S-ODC.	C4~C6
	(Q code read)	If any Q code is improperly read, reset and retry.	C7~C9
Stop process	Stop	A servo is controlled in response to the user's operation to stop the disc completely.	F0~FF

8.5. ADSC Internal Ram Data Display

The servo learning value in the RAM data inside the servo processor ADSC is displayed.
The value is useful for the servo operation/disc quality judge including the OPU.
The concrete contents are shown below:

Address	Contents of display
4B4	Focus gain learning value for DVD-S, DVD-D(L0), CD, and VCD
4BC	Focus gain learning value for DVD-D(L1)
4B6	Focus balance learning value for DVD-S, DVD-D(L0), CD, and VCD
4BE	Focus balance learning value for DVD-D(L1)
4B5	Tracking gain value for DVD-S, DVD-D(L0), CD, and VCD
4BD	Tracking gain value for DVD-D(L1)
TB0	Tracking balance value for DVD-S, DVD-D(L0), CD, VCD
TB1	Tracking balance value for DVD-D(L1)
DBD	DSL offset learning value for DVD-S and DVD-D
DBC	DSL offset learning value for CD and VCD
FC0	Equalizer FC value for DVD-S, DVD-D(L0), CD, and VCD
BT0	Equalizer BOOST value for DVD-S, DVD-D(L0), CD, and VCD
FC1	Equalizer FC value for DVD-D(L1)
BT1	Equalizer BOOST value for DVD-D(L1)

8.6. Sales demonstration lock function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

8.6.1. Setting

The sales demonstration lock is set by simultaneously pressing STOP button on the player and POWER button on the remote control unit.

8.6.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCKED" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

8.7. Service Precautions

8.7.1. Recovery after the dvd player is repaired

When an FROM or an EEPROM in and on the module P.C.B. has replaced, carry out the recovery disc processing to optimize the drive.
Playback the disk above to process the recovery automatically,

Recovery disc (Product number: RFKZD5TR001)

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired.
When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 8.2 is carried out. Write down the contents of the setting before recovery processing, and reset the player

8.7.2. Firmware version-up of the DVD player

The firmware of the DVD player may be renewed to improve the quality including operationability and playability to the substandard discs, processing to optimize the drive.
The version-up disc has also a recovery function so that you don't need use the recovery disc again.

Note:

If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.

In such a case, replace the FROM and carry out the version-up again.

The product number of the version-up disc will be noticed when it is supplied.

8.8. Handling After Completing Repairs

Use the following procedure after completing repairs.

8.8.1. Method

Confirm that the power is turned on:

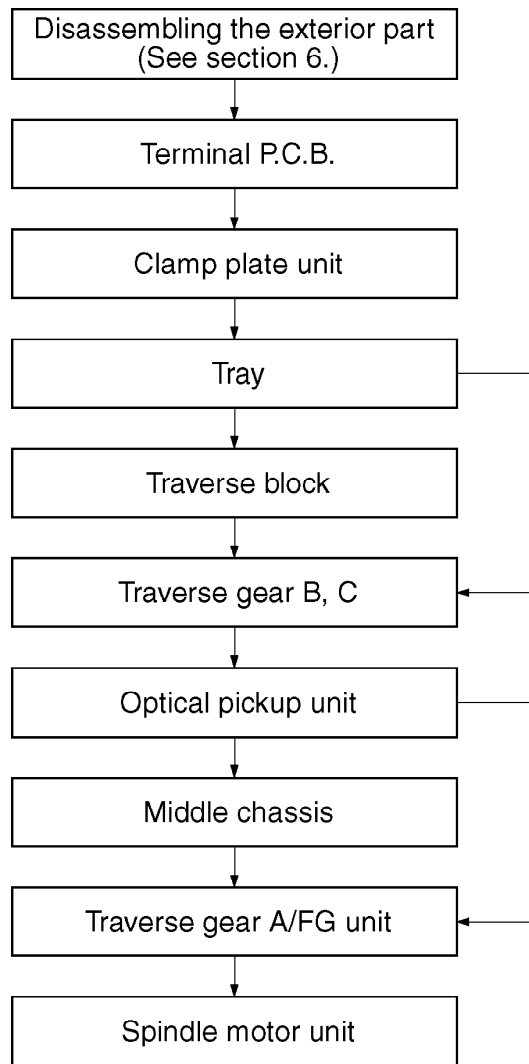
- 1. Press the "OPEN/CLOSE" button to close the tray.**
- 2. Press the "POWER" button to turn off the power.**
- 3. Disconnect the power plug from the outlet.**

8.8.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually.

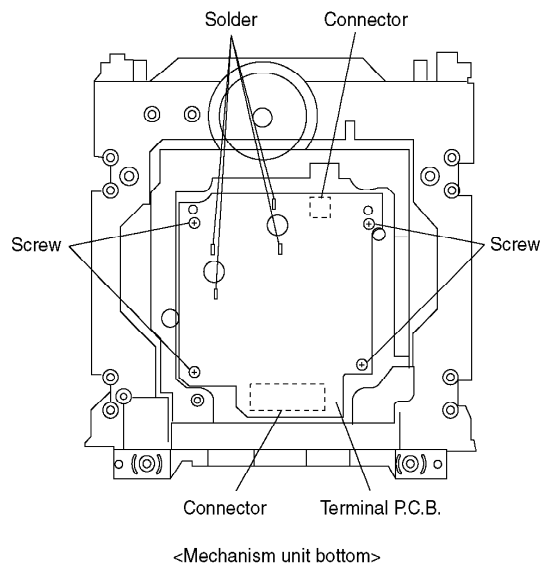
9. ASSEMBLING AND DISASSEMBLING THE MECHANISM UNIT

9.1. Disassembly Procedure



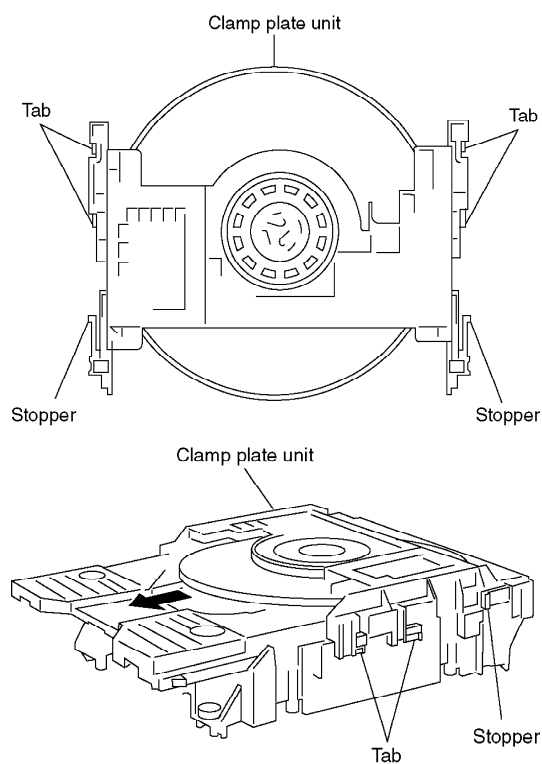
9.2. Terminal P.C.B.

- 1. Unscrew the screws.**
- 2. Remove the solders.**
- 3. Remove the connectors.**



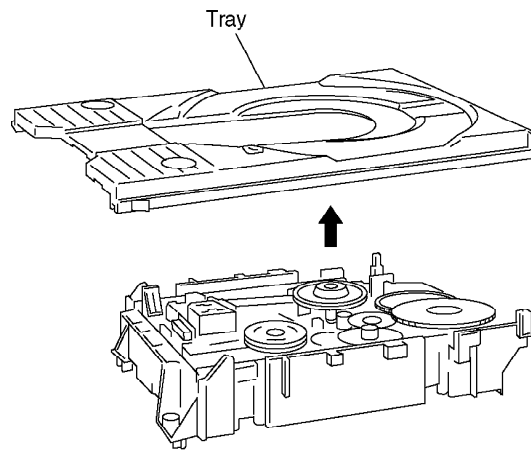
9.3. Clamp Plate Unit

1. Spread the stopper with hand to slide the tabs and remove the clamp plate unit.



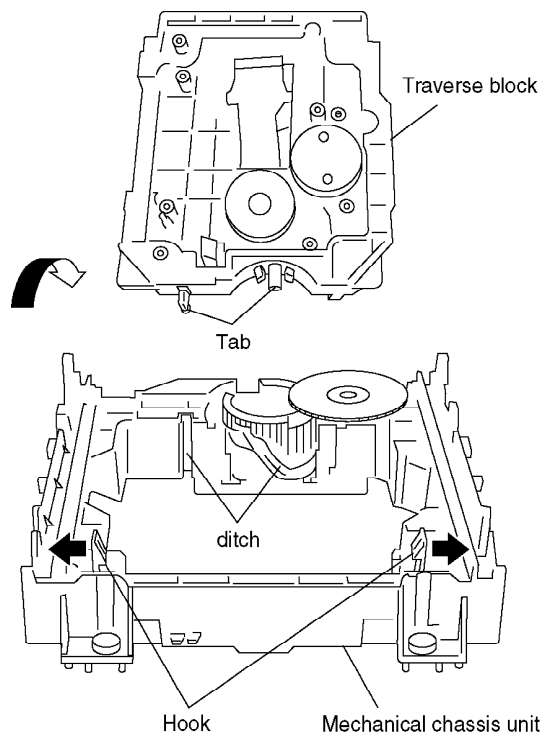
9.4. Tray

1. Lift the tray.



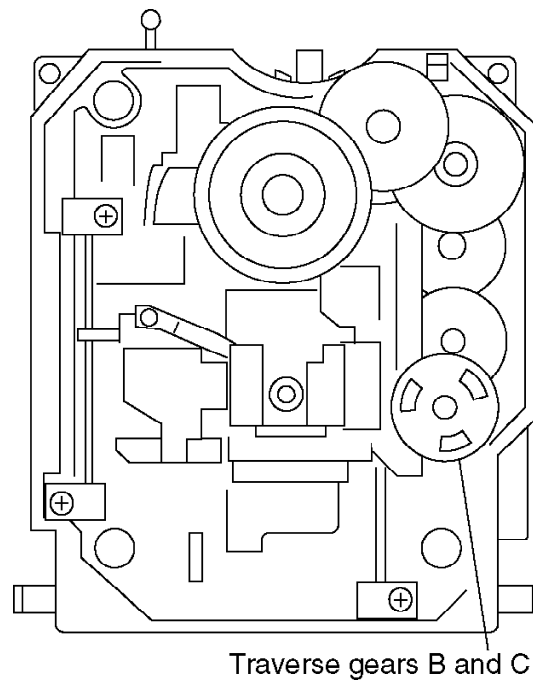
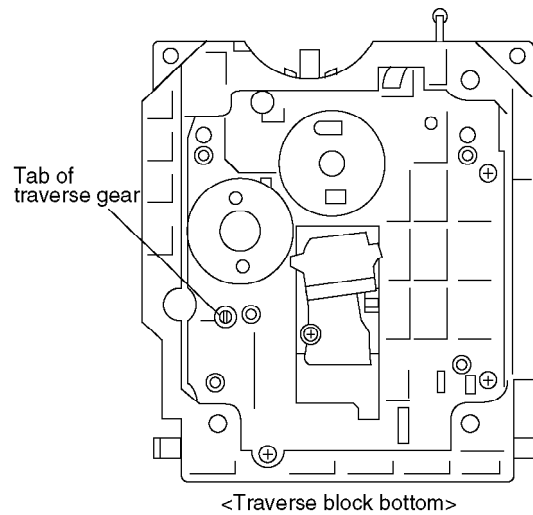
9.5. Traverse Block

1. Lift the traverse block while spreading the hook of the mechanical chassis unit.
2. Disengage the tabs from the holes of the mechanical chassis unit.



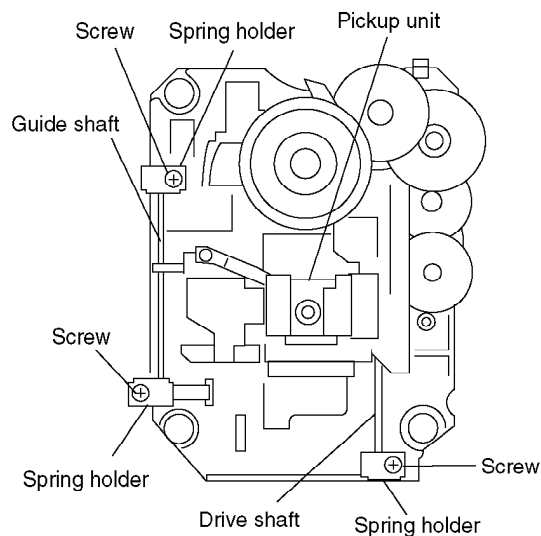
9.6. Traverse Gear

1. Disengage the tabs from the traverse gear.
2. Remove the traverse gears B and C.



9.7. Optical Pickup Unit

1. Unscrew the screws.
2. Remove the spring holders and the springs.
3. Pull out the drive shaft and guide shaft.



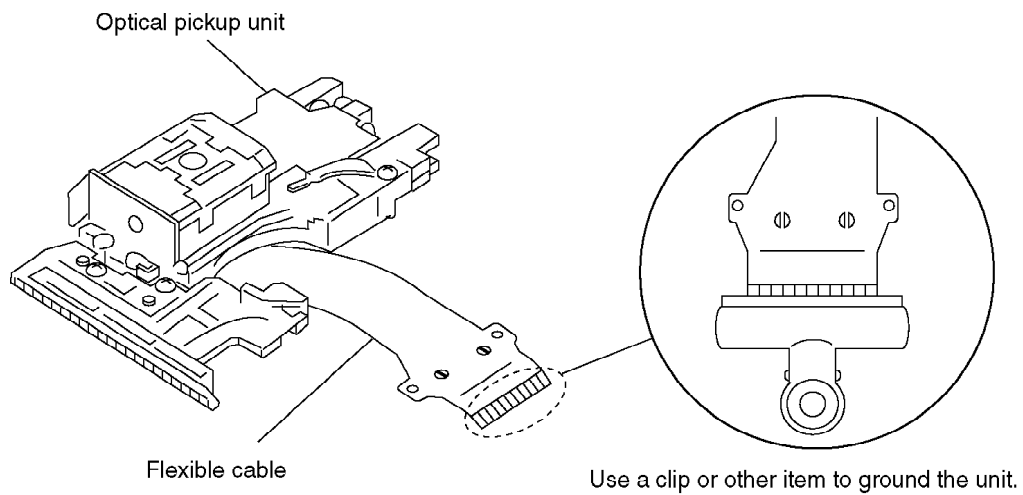
9.7.1. Precautions in optical pickup replacement

The optical pickup can be damaged by static electricity from your body. Be sure to take static electricity countermeasures when working around the optical pickup. (Refer to the related page in this Manual about the countermeasures.)

1. Do not touch laser diode, actuator and their peripheries.
2. Do not use tester to check laser diode. (Laser diode can be damaged easily.)
3. The use of soldering iron with anti-static feature is recommended when providing short-circuit to laser diode or when removing it.
4. Solder the land on flexible cable of optical pickup unit.

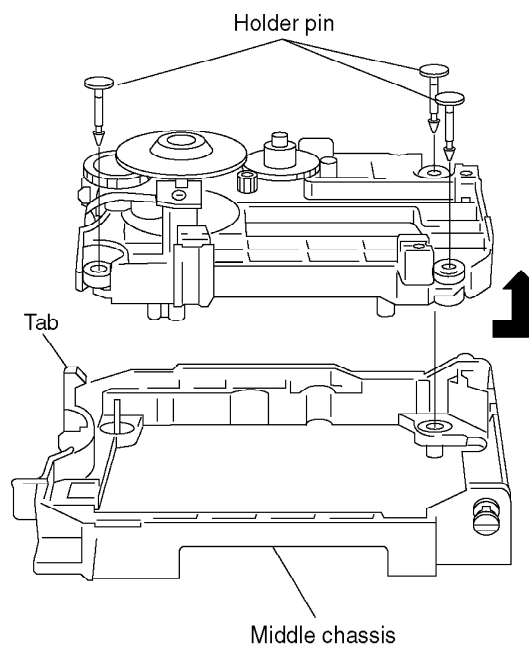
Caution

- When using the soldering iron without anti-static feature, short-circuit the flexible cable terminal with a clip before short-circuiting the land.
- After intended repair is finished, remove the solder for short-circuit of laser diode in a correct way following the procedures described in this Manual.



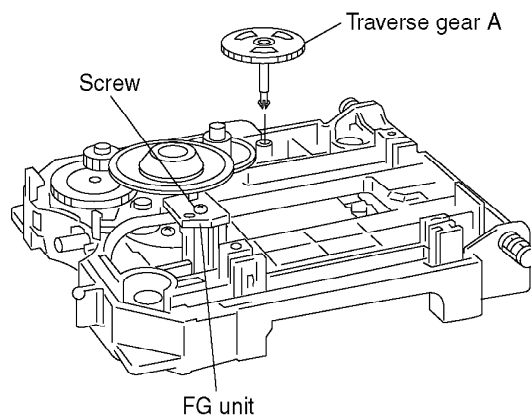
9.8. Disassembling the Middle Chassis

1. Remove the holder pins.
2. Remove the tab.
3. It lifts while pulling it in the direction of the arrow.



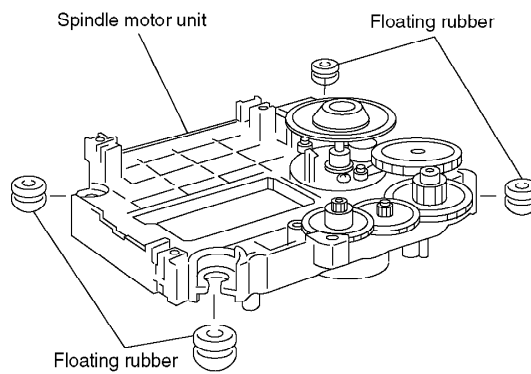
9.9. Disassembling the Traverse Gear A/FG unit

1. Unscrew the screw.
2. Remove the traverse gear A.



9.10. Disassembling the Spindle Motor Unit

1. Remove the floating rubbers.



10. ADJUSTMENT PROCEDURES

10.1. Service Tools and Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S15 or DVDT-S01
	Hex wrench	
Inspection	Extension cable (module P.C.B. to mother P.C.B.)	JGS0098
	Extension cable (module P.C.B. to mother P.C.B.)	VUC8026
	Extension cable (module P.C.B. to mother P.C.B.)	RFKZ0097
	Extension cable (module P.C.B. to mother P.C.B.)	VUC8026
Others	Screw lock	RZZ0L01
	Grease	RFKXGAK152
	Oil	RFKXGA1280, JZS0648
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc

10.2. Important points in adjustment

10.2.1. Important points in optical adjustment

- Before starting optical adjustment, be sure to take anti-static measures.
- Optical pickup tilt adjustment is needed after replacement of the following components.

1. Optical pickup unit
2. Spindle motor unit
3. Optical pickup peripheral parts (such as rail)

Notes

Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality. Optical adjustments cannot be made inside the optical pickup. Adjustment is generally unnecessary after replacing the traverse unit.

10.2.2. Important points in electrical adjustment

- Follow the adjustment procedures described in this Manual.

10.3. Storing and Handling Test Discs

- Surface precision is vital for DVD test discs. Be sure to store and

handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

10.4. Optical adjustment

10.4.1. Optical pickup tilt adjustment

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T01 (inner periphery) play T43 (outer periphery) play	DVDR-S15 or DVD
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitter value.	

10.4.1.1. Adjustment procedure

1. While pressing PAUSE and OPEN/CLOSE buttons on the main unit, press "5" on the remote control unit.
2. Confirm that "J_xxx_yyy_zz" is shown on the front display.

For your information:

"yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focus drive value.

Note:

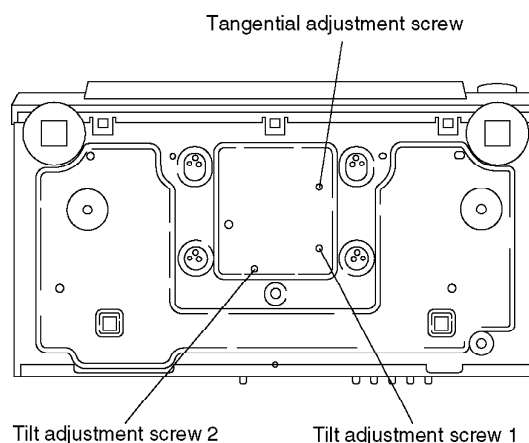
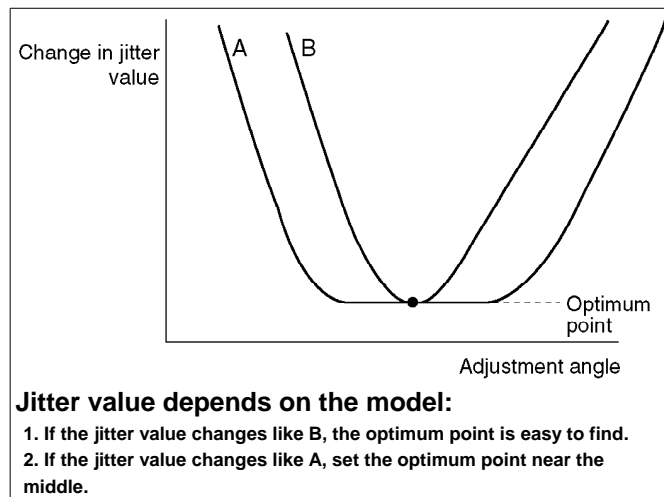
Jitter value appears on the front display.

3. Play test disc T01 (inner periphery).
4. Adjust tangential adjustment screw so that the jitter value is minimized.

5. Play test disc T43 (outer periphery).
6. Adjust tilt adjustment screw 1 so that the jitter value is minimized.
7. Play test disc T43 (outer periphery).
8. Adjust tilt adjustment screw 2 so that the jitter value is minimized.
9. Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.

10.4.1.2. Important points

1. Make tangential adjustment first, and then make tilt adjustment.
2. Repeat adjusting two or three times to find the optimum point.
3. Finish the procedure with tilt adjustment.

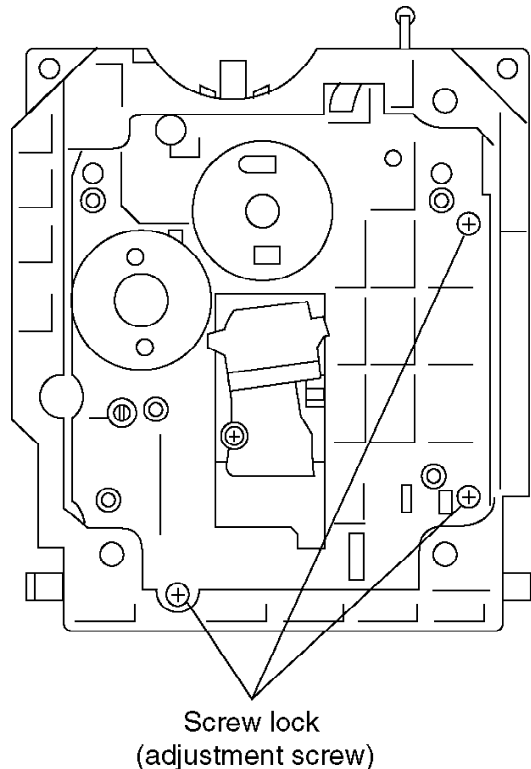


10.4.1.3. Check after adjustment

Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

10.4.1.4. Procedure for screw lock

1. After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.
2. Lay the traverse unit upside down, and fix adjustment screw with screw lock.
3. After fixing, reassemble traverse unit, clamper base, tray and top cover.



11. Electrical Adjustment

Do this confirmation after replacing a P.C.B.

11.1. Video Output (Luminance Signal) Adjustment

Do this confirmation after replacing a P.C.B.

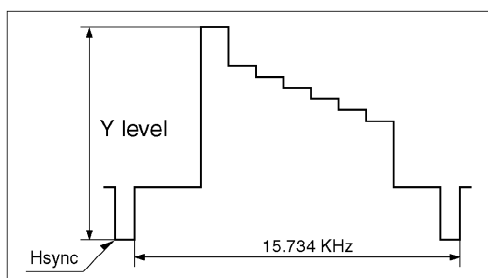
Measurement point	Mode	Disc
S-video output terminal (Y OUT)	PLAY	DTDT-S20 (Title 11) Color bar 100%
Measuring equipment, tools	Adjustment value	Adjustment point
Screwdriver, Oscilloscope 200mV/div 10 μ sec/div	1000mVp-p \pm 20mV	VR3225

Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the S-video output terminate at 75

ohms.

2. Adjust the VR3225 so that the Y level is 1000 mVp-p \pm 20 mV.

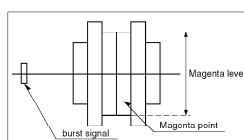


11.2. Video Output (Chrominance Signal) Adjustment

Measurement point	Mode	Disc
S-Video output terminal (C OUT)	PLAY	DVDT-S20 (Title 11) Color bar 100%
Measuring equipment, tools	Adjustment value	Adjustment point
Screwdriver, Oscilloscope 200mV/div 10 μ sec/div	826 mVp-p \pm 40 mV	VR3221

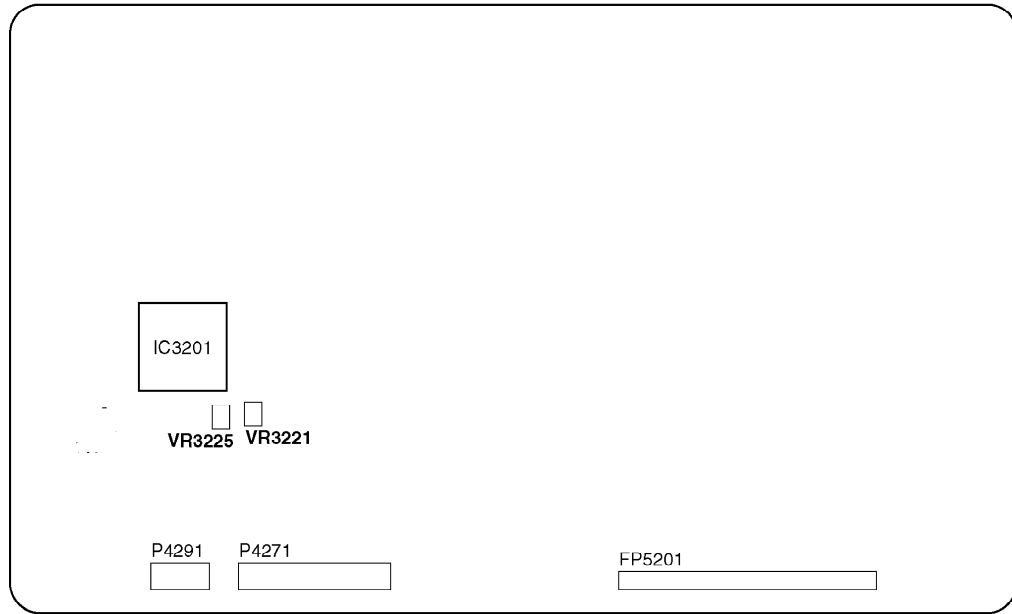
Purpose: To maintain video signal output compatibility.

1. Connect the oscilloscope to the S-video output terminate at 75 ohms.
2. Adjustment the VR3221 so that the Magenta level is 826 mVp-p \pm 40 mV.



11.3. Position of Adjustment Volume

MODULE P.C.B. (COMPONENT SIDE)



12. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMPOUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK

INITIAL/LOGO		ABBREVIATIONS
C	CAV	CONSTANT ANGULAR
	CBDO	VELOCITY
	CD	CAP. BLACK DROP OUT
	CDSCK	COMPACT DISC
	CDSRDATA	CD SERIAL DATA CLOCK
	CDRF	CD SERIAL DATA
	CDV	CD RF (EFM) SIGNAL
	CHNDATA	COMPACT DISC-VIDEO
	CKSL	CHANNEL DATA
	CLV	SYSTEM CLOCKSELECT
	COFTR	CONSTANT LINEAR VELOCITY
	CPA	CAP. OFF TRACK
	CPCS	CPU ADDRESS
	CPDT	CPU CHIP SELECT
	CPUADR	CPU DATA
	CPUADT	CPU ADDRESS LATCH
	CPUIRQ	CPU ADDRESS DATA BUS
	CPRD	CPU INTERRUPT REQUEST
	CPWR	CPU READ ENABLE
	CS	CPU WRITE ENABLE
	CSYNCIN	CHIPSELECT
	CSYNCOUT	COMPOSITE SYNC IN COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ
	DMUTE	CLOCK
	DO	DIGITAL MUTE CONTROL
	DOUT0~UP	DROP OUT
	DRF	DATAOUTPUT
	DRPOUT	DATA SLICE RF (BIAS)
	DREQ	DROP OUT SIGNAL
	DRESP	DATA REQUEST
	DSC	DATA RESPONSE
	DSLIF	DIGITAL SERVO CONTROLLER
	DVD	DATA SLICE LOOP FILTER
		DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL
	ENCSEL	REFERENCE
	ETMCLK	ENCODER SELECT
	ETSCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz) EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP
	FEO	INVERTED INPUT
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
	FSCK	FREQUENCY SUB CARRIER FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	INTERPOLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	CLOCK
	MDQ0~UP	MEMORY SERIAL COMMAND DATA
	MDQM	DATA
	MLD	MEMORY DATA INPUT/OUTPUT
	MPEG	MEMORY DATA I/O MASK
		MEMORYSERIAL COMMAND LOAD
		MOVING PICTURE EXPERTS

		GROUP
INITIAL/LOGO	ABBREVIATIONS	
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE
	PCK	DIFFERENCE
	PDVD	PLL CLOCK
	PEAK	DVD TRACKING PHASE
	PLLCLK /	DIFFERENCE
	PLLOK	CAP. FOR PEAK HOLD
	PWMCTL	CHANNEL PLL CLOCK
	PWMDA	PLL LOCK
	PWMOA, B	PWM OUTPUT CONTROL
		PULSE WAVE MOTOR DRIVEA
		PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO	ABBREVIATIONS	
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE

INITIAL/LOGO		ABBREVIATIONS
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
	SS	SRAM ADDRESS BUS
	STAT	SRAM DATA BUS 0~7
	STCLK	START/STOP
	STD0~UP	STATUS
	STENABLE	STREAM DATA CLOCK
	STSEL	STREAM DATA
	STVALID	STREAM DATA INPUT ENABLE
	SUBC	STREAM DATA POLARITY
	SBCK	SELECT
	SUBQ	STREAM DATAVALIDITY
	SYSCLK	SUB CODE SERIAL
		SUB CODE CLOCK
		SUB CODE Q DATA
		SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY
	VCDCONT	VOLTAGE
	VDD	VIDEO CD CONTROL
	VFB	(TRACKING
	VREF	BALANCE)
	VSS	DRAIN POWER SUPPLY
		VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

13. Voltage Chart

13.1. Power Supply P.C.B.

13.2. Module P.C.B.

13.3. Mother P.C.B.

13.4. Front 2 P.C.B. and Front 3 P.C.B.

13.5. Scart P.C.B.

14. BLOCK DIAGRAM

14.1. OVERALL BLOCK DIAGRAM

14.2. SERVO BLOCK DIAGRAM

14.3. VIDEO BLOCK DIAGRAM

14.4. AUDIO BLOCK DIAGRAM

15. SCHEMATIC DIAGRAM

15.1. INTERCONNECTION SCHEMATIC DIAGRAM

15.2. POWER SUPPLY SCHEMATIC DIAGRAM

15.3. FEP SECTION (MODULE P.C.B. (1/9)) SCHEMATIC DIAGRAM

15.4. SODC SECTION (MODULE P.C.B. (2/9)) SCHEMATIC DIAGRAM

**15.5. AV DECORDER SECTION (MODULE P.C.B. (3/9)) SCHEMATIC
DIAGRAM**

**15.6. NOISE CANCELER SECTION (MODULE P.C.B. (4/9))
SCHEMATIC DIAGRAM**

**15.7. VIDEO D/A CONVERTER SECTION (MODULE P.C.B. (5/9))
SCHEMATIC DIAGRAM**

**15.8. AUDIO D/A CONVERTER SECTION (MODULE P.C.B. (6/9))
SCHEMATIC DIAGRAM**

15.9. WM SECTION (MODULE P.C.B. (7/9)) SCHEMATIC DIAGRAM

**15.10. CLOCK SECTION (MODULE P.C.B. (8/9)) SCHEMATIC
DIAGRAM**

15.11. CPU SECTION (MODULE P.C.B. (9/9)) SCHEMATIC DIAGRAM

**15.12. VIDEO OUT SECTION (MOTHER P.C.B. (1/3)) SCHEMATIC
DIAGRAM**

**15.13. AUDIO OUT SECTION (MOTHER P.C.B. (2/3)) SCHEMATIC
DIAGRAM**

**15.14. OPERATION SECTION (MOTHER P.C.B. (3/3)) SCHEMATIC
DIAGRAM**

15.15. TERMINAL SCHEMATIC DIAGRAM

15.16. SCART SCHEMATIC DIAGRAM

15.17. FRONT 1 AND FRONT 2 AND FRONT 3 SCHEMATIC DIAGRAM

16. PRINT CIRCUIT BOARD

16.1. POWER SUPPLY P.C.B.

16.2. MODULE P.C.B. (1/2) (COMPONENT SIDE)

16.3. MODULE P.C.B. (2/2) (FOIL SIDE)

16.4. MODULE P.C.B. AND MOTHER P.C.B. ADDRESS INFORMATION

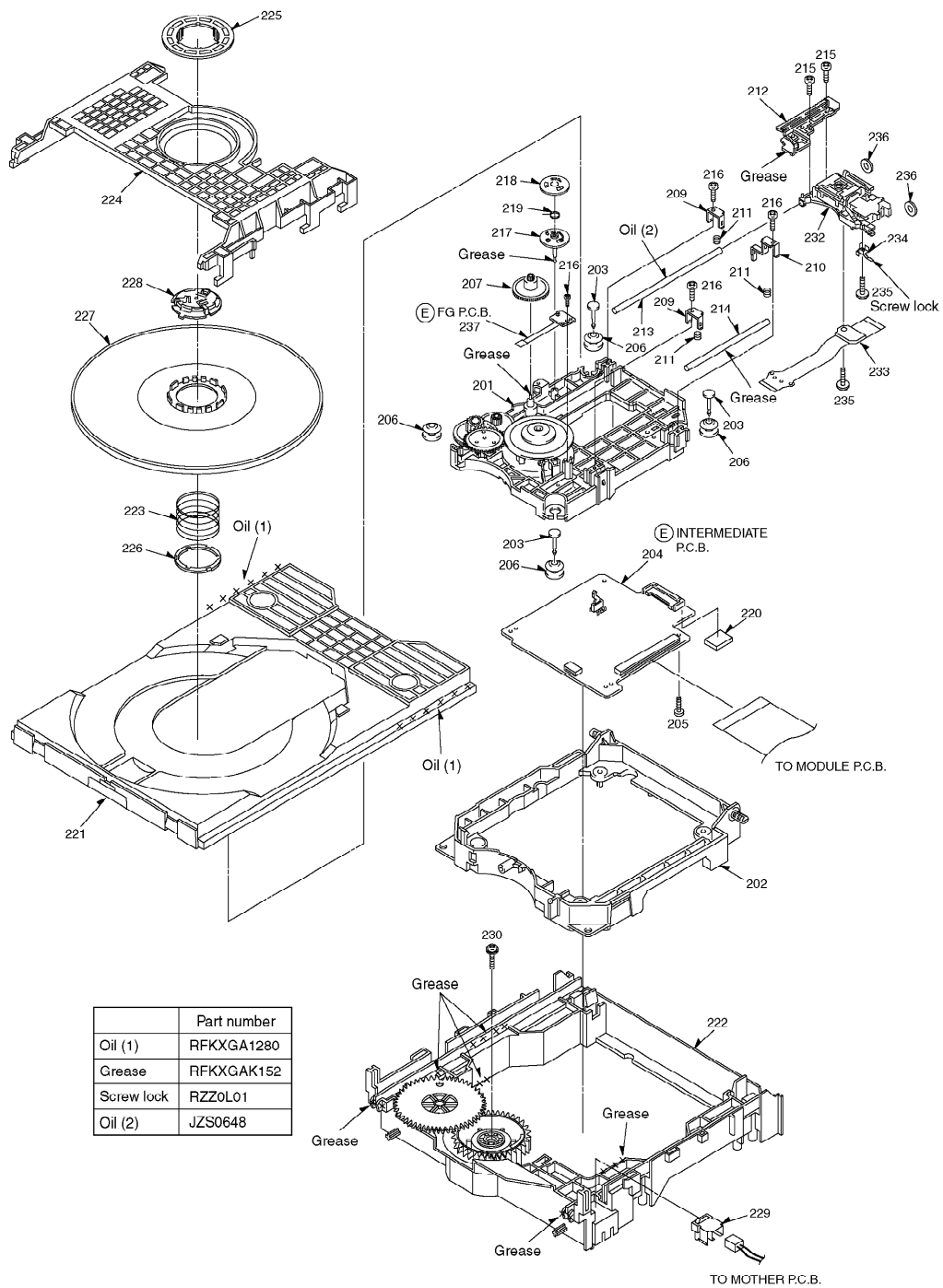
16.5. MOTHER P.C.B.

16.6. SCART P.C.B.

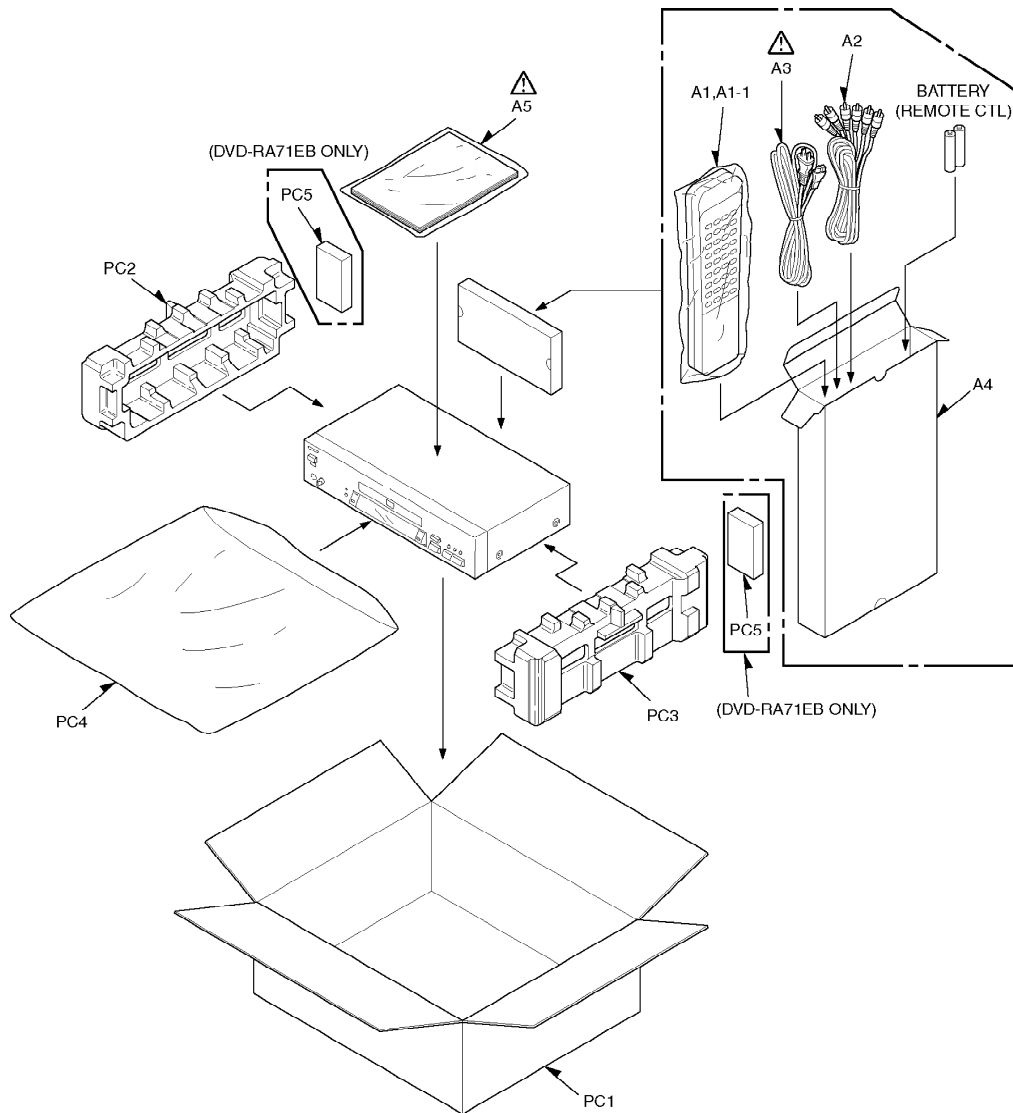
16.7. FRONT 1 P.C.B. AND FRONT 2 P.C.B. AND FRONT 3 P.C.B.

17. EXPLODED VIEWS

17.1. Casing Parts & Mechanism Section Exploded View



17.3. Packing & Accessories Section Exploded View



18. REPLACEMENT PARTS LIST

Notes:

*Important safety notice:

Components identified by mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

*Warning: This product uses a laser diode. Refer to caution statements.

***ACHTUNG:** Die Lasereinheit nicht zerlegen. Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

*Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F=Farads (F).

*Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).

*The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a

specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

*"<IA>", "<IB>", "<IC>", "<ID>", marks in Remarks indicate languages of instruction manuals. [<IA>: German/Italian/French, <IB>: Spanish/Polish, <IC>: Dutch/Swedish/Danish, <ID>: English]

*"(E)", "(EB)", "(EG)", marks in Remarks indicate models. / [(E):DVD-RA71E, (EB):DVD-RA71EB, (EG):DVD-RA71EG]

*"1", "2", "3", "4", marks in Remarks indicate P.C.B.s. / [*1:POWER SUPPLY P.C.B., *2: MOTHER P.C.B., *3:MODULE P.C.B., *4:FRONT 1 P.C.B.]

*[SPC] in Remarks columns parts that are supplied by S.P.C..

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0437-N	TOP COVER	1	[SPC]
2	VHD0690	SCREW	3	[SPC]
3	VHD1094	SCREW	4	[SPC]
4	VYK5504	LEG	4	[SPC]
6	XTV3+8G	SCREW	4	[SPC]
7	REP3095B	MODULE P.C.B.	1	(RTL)[SPC]
8	REP3096B	MOTHER P.C.B.	1	(RTL)[SPC]
8-1	RYQ0344-K	FL HOLDER	1	[SPC]
10	RYF0570-N	TRAY TOP	1	[SPC]
11	XTV3+10J	SCREW	6	[SPC]
12	RHD30090	SCREW	5	[SPC]
13	VHD0690	SCREW	13	[SPC]
14	REZ1354	FLEXIBLE CABLE(38P)	1	(FP5002-FP5201)[SPC]
15	REX1057	CONNECTOR CABLE(2P)	1	(P6005-MECHA)[SPC]
16	RYP1002-N	FRONT PANEL ASS'Y 1	1	[SPC]
16-1	RGU1930-N	OPERATION BUTTON	1	[SPC]
16-2	RGU1931A-N	AUDIO BUTTON	1	[SPC]
16-3	RGU1932-N	POWER BUTTON	1	[SPC]
17	REP3097A	FRONT 1,2,3 P.C.B.	1	(RTL)[SPC]
18	XTBS26+10J	SCREW	11	[SPC]
24	RKW0627-Q	FRONT COVER	1	[SPC]
30	REP3132A	POWER SUPPLY P.C.B.	1	(RTL)[SPC]
30-1	XYN3+F8	SCREW	2	[SPC]
33	VMD3854	SPACER(L)	1	[SPC]
34	VMD3855	SPACER(R)	1	[SPC]
35	XYE3+EF12	SCREW	2	[SPC]
36	XTV3+20F	SCREW	6	[SPC]
37	RGQ0290-N	SIDE COVER(L)	1	[SPC]
38	RGQ0291-N	SIDE COVER(R)	1	[SPC]
39	RGL0525A-Q	INDICATER(AUDIO)	1	[SPC]
40	RGL0527-Q	INDICATER(DNR)	1	[SPC]
41	RGL0540-Q	INDICATER(RE-MASTER)	1	[SPC]
42	VGU8354	VOLUME KNOB	1	[SPC]
43	XYE3+FJ8	SCREW	1	[SPC]
44	REZ1357	FLEXIBLE CABLE(16P)	1	(FP4701-FP6001)[SPC]
45	REZ1356	FLEXIBLE CABLE(6P)	1	(FP6002-FP6201)[SPC]
46	REP3138A	SCART P.C.B.	1	(RTL)[SPC]
47	RGL0526-Q	INDICATER(STANDBY)	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
201	RXQ0742	SPINDLE MOTOR ASS'Y	1	[SPC]
202	RMR1323-X	MIDDLE CHASSIS	1	[SPC]
203	RMS0712	FIXED PIN	3	[SPC]
204	REP3082A-N	INTERMEDIATE P.C.B.	1	(RTL)[SPC]
205	XTW2+8P	SCREW	1	[SPC]
206	RMG0545-A	FLOATING RUBBER	4	[SPC]
207	RDG0499	TRAVERSE GEAR(A)	1	[SPC]
209	RMC0415	ADJUST SPRING HOLDER1	2	[SPC]
210	RMC0416	ADJUST SPRING HOLDER2	1	[SPC]
211	RME0320	ADJUST SPRING	3	[SPC]
212	RMM0234	TRAVERSE DRIVE RACK	1	[SPC]
213	RMS0710	DRIVE SHAFT	1	[SPC]
214	RMS0711	GUIDE SHAFT	1	[SPC]
215	RHD17028	SCREW	2	[SPC]
216	VHD1224	SCREW	4	[SPC]
217	RDG0500	TRAVERSE GEAR(B)	1	[SPC]
218	RDG0501	TRAVERSE GEAR(C)	1	[SPC]
219	RME0319	TRAVERSE GEAR SPRING	1	[SPC]
220	RMG0558-K	PCB RUBBER	1	[SPC]
221	RGQ0280-K	TRAY	1	[SPC]
222	RXQ0727	MECHA CHASSIS ASS'Y	1	[SPC]
223	RME0318	CLAMPER SPRING	1	[SPC]
224	RMR1317-K	CLAMP PLATE	1	[SPC]
225	RMR1318-X	FIXTURE	1	[SPC]
226	RMR1321-X	SPRING HOLDER	1	[SPC]
227	RXQ0724	CLAMPER ASS'Y	1	[SPC]
228	RXQ0729	MAGNET HOLDER ASS'Y	1	[SPC]
229	RSH1A049-U	OPEN SWITCH	1	[SPC]
230	XTW3+12S	SCREW	1	[SPC]
232	RAF3020A-1	OPTICAL PICK-UP	1	[SPC]
233	RJB2308A	INTERFACE FPC	1	[SPC]
234	RMC0418	SHAFT SPRING	1	[SPC]
235	VHD1057	SCREW	2	[SPC]
236	RMG0561-T	CUSHION RUBBER	2	[SPC]
237	REP3081A	FG P.C.B.	1	(RTL)[SPC]
A1	N2QAJB000020	REMOTE CONTROL ASS'Y	1	[SPC]
A1-1	103RRC19901R	BATTERY COVER	1	[SPC]
A2	VJA0788	AV CORD	1	K1EA06CA0002 [SPC]
A3	RJA0019-1X	AC CORD	1	[SPC](E)(EG) 
A3	RJA0053-2X	AC CORD	1	[SPC](EB) 
A4	RPQF0220	ACCESSORY CASE	1	[SPC](E)(EG)
A4	VPK2227Z	ACCESSORY CASE	1	[SPC](EB)
A5	RQT5902-D	OPERATING INSTRUCTIONS	1	<IA>[SPC](EG) 
A5	RQT5904-E	OPERATING INSTRUCTIONS	1	<IB>[SPC](E) 
A5	RQT5903-H	OPERATING INSTRUCTIONS	1	<IC>[SPC](EG) 
A5	RQT5905-B	OPERATING INSTRUCTIONS	1	<ID>[SPC](E)(EG) 
C1001,02	F0XAF104002	0.1U	2	[SPC] 
C1003,04	VCK0286B471	CERAMIC CAPACITOR	2	F1BAF471A013 [SPC]
C1005	VCK0286E102T	CERAMIC CAPACITOR	1	F1BAF1020011 [SPC]
C1013	ECEC2GG680	68U	1	[SPC] 
C1021	VCK0106K221T	CERAMIC CAPACITOR	1	F1B3D221A002 [SPC]

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1031	VCK0266K182T	CERAMIC CAPACITOR	1	F1B2H1820001 [SPC]
C1041	ECQB1H223JF	50V 0.022U	1	[SPC]
C1051	ECQB1H104JF	50V 0.1U	1	[SPC]
C1052	ECQB1H683JF	50V 0.068U	1	[SPC]
C1053	ECQB1H104JF	50V 0.1U	1	[SPC]
C1061	VCEA0JJC470B	6.3V 47U	1	F2A0J4700003 [SPC]
C1101	ECQV1H104JL	50V 0.1U	1	[SPC]
C1102	ECQB1H223JF	50V 0.022U	1	[SPC]
C1111	VCEA1AJH182	10V 180U	1	F2A1A1820001 [SPC]
C1112	ECA1CAM102X	16V 1000U	1	[SPC]
C1116	ECA1APX221	10V 220U	1	[SPC]
C1117	ECA1CAM102X	16V 1000U	1	[SPC]
C1120	ECUX1H101JCV	50V 100P	1	[SPC]
C1121	VCEA1AJH102B	10V 1000U	1	F2A1A102A013 [SPC]*1
C1121	ECUX1C104ZFV	16V 0.1U	1	[SPC]*2
C1122	VCEA1AJC102B	10V 1000U	1	F2A1A1020004 [SPC]*1
C1122	ECUV1C103KBV	16V 1000U	1	F1H1C103A071 [SPC]*2
C1124	ECUX1C393KBV	16V 0.039U	1	[SPC]
C1125	ECA0JM102	6.3V 1000U	1	[SPC]*1
C1125	ECUX1H330JCV	50V 33P	1	[SPC]*2
C1126	ECUX1H103KBV	50V 0.01U	1	[SPC]
C1127	ECUX1C223KBV	16V 0.022U	1	[SPC]
C1131	ECEA1VAU221	35V 220U	1	[SPC]
C1141	ECEA1VAU221	35V 220U	1	[SPC]*1
C1141	ECA0JM331	6.3V 330U	1	[SPC]*2
C1142	ECUX1H222KBV	50V 2200P	1	[SPC]
C1143	ECUM1H101JCN	50V 100P	1	[SPC]
C1144	RCE0JSA470BX	6.3V 47U	1	F2D0J4700003 [SPC]
C1145	ECA0JM102	6.3V 1000U	1	[SPC]
C1151	VCEA1EJH271B	25V 270U	1	F2A1E2710001 [SPC]
C1153	VCEA1EJC221B	25V 220U	1	F2A1E2210008 [SPC]
C1154	VCEA1CJC221B	16V 220U	1	F2A1C2210006 [SPC]
C1155	ECFR1E104ZF5	25V 0.1U	1	F1C1E1040003 [SPC]
C1161	VCEA1HJH560B	50V 56U	1	F2A1H5600002 [SPC]
C1171	VCEA1AJH181B	10V 180U	1	F2A1A1810002 [SPC]
C2001,02	EEVHB0J101	6.3V 100U	2	EEVHB0J101P [SPC]
C2003-18	ECUX1C104ZFV	16V 0.1U	16	[SPC]
C2021	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C2022-25	ECUX1C104ZFV	16V 0.1U	4	[SPC]
C2026	ECUX1C104KBV	16V 0.1U	1	[SPC]
C2031,32	ECUX1C104KBV	16V 0.1U	2	[SPC]
C2034	ECUX1C393KBV	16V 0.039U	1	[SPC]
C2035	ECUX1H822KBV	50V 6800P	1	[SPC]
C2036	ECUX1C104KBV	16V 0.1U	1	[SPC]
C2038	ECUX1C104KBV	16V 0.1U	1	[SPC]
C2039	ECUV1C103KBV	16V 1000U	1	F1H1C103A071 [SPC]
C2040	ECUX1H102JCV	50V 1000P	1	[SPC]
C2041	ERJ3GEYJ103	1/16W 10K	1	[SPC]
C2042	ERJ3GEYJ561	1/16W 560	1	[SPC]
C2043	ECUX1H101JCV	50V 100P	1	[SPC]
C2044,45	ECUX1H391JCV	50V 390P	2	[SPC]
C2046	ECUX1H102JCV	50V 1000P	1	[SPC]
C2047	ECUV1C103KBV	16V 1000U	1	F1H1C103A071 [SPC]
C2048	ECUX1C153KBV	16V 0.015U	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2050	ECUX1C333KBV	16V 0.033U	1	[SPC]
C2051	ECUX1H680JCV	50V 68P	1	[SPC]
C2052,53	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C2054	ECUX1H681JCV	50V 680P	1	[SPC]
C2055	ECUX1H682KBV	50V 6800P	1	[SPC]
C2056,57	ECUX1C104KBV	16V 0.1U	2	[SPC]
C2058	ECUX1H102JCV	50V 1000P	1	[SPC]
C2059	ECYX1H821JCV	50V 820P	1	ECUX1H821JCV [SPC]
C2060	ECUX1H102JCV	50V 1000P	1	[SPC]
C2061,62	ECUX1H331JCV	50V 330P	2	F1H1H3310005 [SPC]
C2063-65	ECUX1H102JCV	50V 1000P	3	[SPC]
C2066-68	ECUX1H472KBV	50V 4700P	3	[SPC]
C2501	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C2502	ECEV0JA331	6.3V 330U	1	[SPC]
C2503	ECEV1CA101W	16V 100U	1	[SPC]
C2504-08	ECUX1C104ZFB	16V 0.1U	5	[SPC]
C2511,12	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C2601,02	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C3001,02	ECEV0JA331	6.3V 330U	2	[SPC]
C3003-07	ECUX1C104ZFB	16V 0.1U	5	[SPC]
C3008,09	ECUX1A105ZFB	10V 1U	2	[SPC]
C3010-35	ECUX1C104ZFB	16V 0.1U	26	[SPC]
C3038,39	ECUZ1A105KBN	10V 1U	2	F1J1A1050018 [SPC]
C3040,41	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C3051-53	ECUX1C104ZFB	16V 0.1U	3	[SPC]
C3054	ECUX1H220JCV	50V 22P	1	[SPC]
C3061-67	ECUX1C104ZFB	16V 0.1U	7	[SPC]
C3091	ECUX1C104KBV	16V 0.1U	1	[SPC]
C3092	ECUV0J105KBV	6.3V 1U	1	F1H0J105A001 [SPC]
C3093	ECUZ1A105KBN	10V 1U	1	F1J1A1050018 [SPC]
C3094	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3095	EEVHB0J330	6.3V 33U	1	[SPC]
C3096	ECUZ1A105KBN	10V 1U	1	F1J1A1050018 [SPC]
C3201	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C3202-06	ECUX1C104ZFB	16V 0.1U	5	[SPC]
C3207	ECUX1C104KBV	16V 0.1U	1	[SPC]
C3208,09	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C3210	ECUX1C104KBV	16V 0.1U	1	[SPC]
C3211,12	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C3220	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C3221	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3226	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3231	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3236	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3241	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3251	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C3252	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3253	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C3254	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C3500	ECA0JM471G	6.3V 470U	1	ECA0JM471 [SPC]
C3501	ECA0JM221	6.3V 220U	1	[SPC]
C3502,03	ECUX1H103ZFB	50V 0.01U	2	[SPC]
C3511	ECUX1H103ZFB	50V 0.01U	1	[SPC]
C3531	ECA0JM221	6.3V 220U	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3532	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C3533	ECEA1CKA470	16V 47U	1	[SPC]
C3534	ECUX1H103KBV	50V 0.01U	1	[SPC]
C3535	ECA0JM221	6.3V 220U	1	[SPC]
C3536	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C3537	ECEA1CKA100	16V 10U	1	[SPC]
C3538	ECA0JM102	6.3V 1000U	1	[SPC]
C3539	ECEA1CKA100	16V 10U	1	[SPC]
C3540	ECA0JM102	6.3V 1000U	1	[SPC]
C3542	ECUX1H103KBV	50V 0.01U	1	[SPC]
C3543,44	ECUX1H103ZFV	50V 0.01U	2	[SPC]
C3551	ECA0JM221	6.3V 220U	1	[SPC]
C3552-54	ECUX1H103ZFV	50V 0.01U	3	[SPC]
C3561,62	ECUX1H103ZFV	50V 0.01U	2	[SPC]
C3571,72	ECUX1H103ZFV	50V 0.01U	2	[SPC]
C3758,59	ECUX1C104ZFV	16V 0.1U	2	[SPC]
C3801-03	ECEA1CKA470	16V 47U	3	[SPC]
C3804	ECEA1HKA010	50V 1U	1	[SPC]
C3805	ECEA1CKA220	16V 22U	1	[SPC]
C3806-10	ECEA1HKA010	50V 1U	5	[SPC]
C3811-14	ECEA0JKA221	6.3V 220U	4	[SPC]
C3815	ECEA1CKA470	16V 47U	1	[SPC]
C3816-19	ECEA0JKA331	6.3V 330U	4	[SPC]
C3820	ECEA1CKA101	16V 100U	1	[SPC]
C3821	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C3851	ECEA0JKA221	6.3V 220U	1	[SPC]
C3852	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C3853-56	ECEA1CKA470	16V 47U	4	[SPC]
C3857	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C3858-60	ECEA1AKN470	10V 47U	3	[SPC]
C3861	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C3862	ECEA0JKA101	6.3V 100U	1	[SPC]
C3863	ECEA1CKA220	16V 22U	1	[SPC]
C3864	ECEA0JKA101	6.3V 100U	1	[SPC]
C3865	ECEA1CKA220	16V 22U	1	[SPC]
C3866	ECEA0JKA101	6.3V 100U	1	[SPC]
C3867	ECEA1CKA220	16V 22U	1	[SPC]
C3871	ECUX1H101JCV	50V 100P	1	[SPC]
C3872	ECUX1H471JCV	50V 470P	1	[SPC]
C3873	ECUX1H101JCV	50V 100P	1	[SPC]
C3874	ECUX1H471JCV	50V 470P	1	[SPC]
C3881-84	ECUX1H471JCV	50V 470P	4	[SPC]
C3891	ECEA1CKA101	16V 100U	1	[SPC]
C3892,93	ECUX1C104ZFV	16V 0.1U	2	[SPC]
C4201	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C4202	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4210	ECEV0JA102	6.3V 1000U	1	[SPC]
C4211	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4212	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C4213	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4214	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C4215	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4216	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C4217,18	RCST1AY106RC	10V 10U	2	F3F1A1060002 [SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4219	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4220	RCST1AX226RC	10V 22U	1	F3G1A226A002 [SPC]
C4221-24	ECUX1C104ZV	16V 0.1U	4	[SPC]
C4225	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4227	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4229	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4230	RCST1AX226RC	10V 22U	1	F3G1A226A002 [SPC]
C4231-34	ECUX1C104ZV	16V 0.1U	4	[SPC]
C4235	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4237	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4239	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4240	RCST1AX226RC	10V 22U	1	F3G1A226A002 [SPC]
C4241-44	ECUX1C104ZV	16V 0.1U	4	[SPC]
C4245	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4247	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C4249-53	ECUX1C104ZV	16V 0.1U	5	[SPC]
C4261	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4301	VCEA0JAE470B	6.3V 47U	1	F2A0J470A120 [SPC]
C4302	ECHR1H102JZ	50V 1000P	1	[SPC]
C4303	ECHR1H101JZ	50V 100P	1	[SPC]
C4304	ECEA1HKN010	50V 1U	1	[SPC]
C4305	VCEA0JAE470B	6.3V 47U	1	F2A0J470A120 [SPC]
C4306,07	ECHR1H223JZ	50V 0.022U	2	[SPC]
C4308,09	VCEA1EAE101B	25V 100U	2	F2A1E1010013 [SPC]
C4310	ECHR1H101JZ	50V 100P	1	[SPC]
C4311	VCEA0JAE470B	6.3V 47U	1	F2A0J470A120 [SPC]
C4312	ECHR1H102JZ	50V 1000P	1	[SPC]
C4313,14	ECHR1H101JZ	50V 100P	2	[SPC]
C4315	VCEA0JAE470B	6.3V 47U	1	F2A0J470A120 [SPC]
C4316	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4317	ECA1APX102	10V 1000U	1	[SPC]
C4318	VCEA1CAE101B	16V 100U	1	F2A1C1010011 [SPC]
C4319	ECHR1H223JZ	50V 0.022U	1	[SPC]
C4320	ECUX1C104ZV	16V 0.1U	1	[SPC]
C4321	ECA1CAK470X	16V 47U	1	[SPC]
C4322	ECWM1H102JZ5	50V 1000P	1	F0A1H102A017 [SPC]
C4323	ECWM1H101JZ5	50V 100P	1	F0A1H101A017 [SPC]
C4325	ECA1CAK470X	16V 47U	1	[SPC]
C4331	ECA1CAK470X	16V 47U	1	[SPC]
C4332	ECWM1H102JZ5	50V 1000P	1	F0A1H102A017 [SPC]
C4333	ECWM1H101JZ5	50V 100P	1	F0A1H101A017 [SPC]
C4335	ECA1CAK470X	16V 47U	1	[SPC]
C4341	ECA1CAK470X	16V 47U	1	[SPC]
C4342	ECWM1H102JZ5	50V 1000P	1	F0A1H102A017 [SPC]
C4343	ECWM1H101JZ5	50V 100P	1	F0A1H101A017 [SPC]
C4345	ECA1CAK470X	16V 47U	1	[SPC]
C4346,47	ECUX1C104ZV	16V 0.1U	2	[SPC]
C4351	ECA1CAK470X	16V 47U	1	[SPC]
C4352	ECWM1H102JZ5	50V 1000P	1	F0A1H102A017 [SPC]
C4353	ECWM1H101JZ5	50V 100P	1	F0A1H101A017 [SPC]
C4355	ECA1CAK470X	16V 47U	1	[SPC]
C4361	ECA1CAK470X	16V 47U	1	[SPC]
C4362	ECWM1H102JZ5	50V 1000P	1	F0A1H102A017 [SPC]
C4363	ECWM1H101JZ5	50V 100P	1	F0A1H101A017 [SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4365	ECA1CAK470X	16V 47U	1	[SPC]
C4366,67	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C4371	ECA1CAK470X	16V 47U	1	[SPC]
C4372	ECUX1H102JCV	50V 1000P	1	[SPC]
C4373	ECUX1H101JCV	50V 100P	1	[SPC]
C4376	ECA1ANK470X	10V 47U	1	[SPC]
C4501	ECUX1H102JCV	50V 1000P	1	[SPC]
C4511	ECUX1H102JCV	50V 1000P	1	[SPC]
C4521	ECUX1H102JCV	50V 1000P	1	[SPC]
C4531	ECUX1H102JCV	50V 1000P	1	[SPC]
C4541	ECUX1H102JCV	50V 1000P	1	[SPC]
C4551	ECUX1H102JCV	50V 1000P	1	[SPC]
C4561	ECUX1H102JCV	50V 1000P	1	[SPC]
C4571	ECUX1H102JCV	50V 1000P	1	[SPC]
C4581,82	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C4584-89	ECUX1C104ZFB	16V 0.1U	6	[SPC]
C4592	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4701,02	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C4731	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4734,35	ECUX1H103ZFB	50V 0.01U	2	[SPC]
C4736,37	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C4738,39	ECEA1AKA101	10V 100U	2	[SPC]
C4751	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4753	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4755	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4758	ECEA0JKA101	6.3V 100U	1	[SPC]
C4761	ECUX1H271JCV	50V 270P	1	[SPC]
C4763	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4764	ECEA1HKA4R7	50V 4.7U	1	[SPC]
C4771	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4772	ECUX1H151JCV	50V 150P	1	[SPC]
C4773	ECUX1H680JCV	50V 68P	1	[SPC]
C4774	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4781	ECEA1HKA4R7	50V 4.7U	1	[SPC]
C4782	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C4901	VCEA1EAE101B	25V 100U	1	F2A1E1010013 [SPC]
C4911	VCEA1EJC221B	25V 220U	1	F2A1E2210008 [SPC]
C4912	VCEA1EAE101B	25V 100U	1	F2A1E1010013 [SPC]
C4921	ECHR1H223JZ	50V 0.022U	1	[SPC]
C4922	ECA1APX331	10V 330U	1	[SPC]
C4923	ECHR1H223JZ	50V 0.022U	1	[SPC]
C4924	ECA1APX471	10V 470U	1	[SPC]
C4931	ECHR1H223JZ	50V 0.022U	1	[SPC]
C4932	ECA1APX331	10V 330U	1	[SPC]
C4933	ECHR1H223JZ	50V 0.022U	1	[SPC]
C4934	ECA1APX471	10V 470U	1	[SPC]
C5001,02	ECUX1C104ZFB	16V 0.1U	2	[SPC]
C5201,02	EEVHB1C100	16V 10U	2	[SPC]
C5203-05	ECUX1C104ZFB	16V 0.1U	3	[SPC]
C5211	EEVHB0J470	6.3V 47U	1	[SPC]
C5215	EEVHB0J470	6.3V 47U	1	[SPC]
C5221	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C5222	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C5231	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C5232-34	ECUX1C104ZFV	16V 0.1U	3	[SPC]
C5235,36	ECUX1C104KBV	16V 0.1U	2	[SPC]
C5251	ECUX1H101JCV	50V 100P	1	[SPC]
C5252	ECUX1C104KBV	16V 0.1U	1	[SPC]
C5261	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C5262	ECYX1H821JCV	50V 820P	1	ECUX1H821JCV [SPC]
C5263	ECUX1H221JCV	50V 220P	1	[SPC]
C5264	ECYX1H821JCV	50V 820P	1	ECUX1H821JCV [SPC]
C5271,72	ECUX1C104ZFV	16V 0.1U	2	[SPC]
C5273	ECUX1H182KBV	50V 1800P	1	[SPC]
C5274	ECUX1C104KBV	16V 0.1U	1	[SPC]
C5282	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C5283,84	ECUX1H561JCV	50V 560P	2	[SPC]
C5285	ECUX1C273KBV	16V 0.027U	1	[SPC]
C5288	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C5289-92	ECUX1C104KBV	16V 0.1U	4	[SPC]
C5295	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C5298	ECUX1C473KBV	16V 0.047U	1	[SPC]
C6001	ECEA0JKA221	6.3V 220U	1	[SPC]
C6002	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6003	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C6005	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C6007	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C6008	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6013	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6014	ECEA0JKS101	6.3V 100U	1	[SPC]
C6015	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6016	ECEA1HKS100	50V 10U	1	[SPC]
C6017	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6018	ECUX1H103ZFV	50V 0.01U	1	[SPC]
C6071	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6072	ECEA0JKS470	6.3V 47U	1	[SPC]
C6073	ECEA0JKS331	6.3V 330U	1	[SPC]
C6101	ECEA0JKS470	6.3V 47U	1	[SPC]
C6102	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6201	EEVHB0J330	6.3V 33U	1	[SPC]
C6202-06	ECUX1C104ZFV	16V 0.1U	5	[SPC]
C6211	ECUX1H101JCV	50V 100P	1	[SPC]
C6215	ECUX1C104KBV	16V 0.1U	1	[SPC]
C6221	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6251	ECUX1H103KBV	50V 0.01U	1	[SPC]
C6252	EEVHB0J101	6.3V 100U	1	EEVHB0J101P [SPC]
C6271	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6272	RCST1AY106RC	10V 10U	1	F3F1A1060002 [SPC]
C6301,02	ECUX1C104ZFV	16V 0.1U	2	[SPC]
C6501	EEVHB0J330	6.3V 33U	1	[SPC]
C6502,03	ECUX1C104ZFV	16V 0.1U	2	[SPC]
C6504	ECUX1H102JCV	50V 1000P	1	[SPC]
C6505	ECUX1H080DCV	50V 8P	1	[SPC]
C6511	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6521	ECUX1C104ZFV	16V 0.1U	1	[SPC]
C6522	ECUX1H102JCV	50V 1000P	1	[SPC]
C6523	ECUX1H050DCV	50V 5P	1	[SPC]
C6531	ECUX1C104ZFV	16V 0.1U	1	[SPC]


Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6541	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C6551	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C6561	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C6562,63	ECUX1H150JCV	50V 15P	2	[SPC]
C6571	ECUX1C104ZFB	16V 0.1U	1	[SPC]
C6801,02	EEVHB0J101	6.3V 100U	2	EEVHB0J101P [SPC]
C6803-14	ECUX1C224ZFB	16V 0.022U	12	[SPC]
D1002	ENC471D5ATRB	DIODE	1	J0LG00000006 [SPC] 
D1011	S1WBA80	DIODE	1	B0EBKT000003 [SPC] 
D1031	AP01C	DIODE	1	B0HADV000010 [SPC] 
D1041	AU01Z	DIODE	1	B0HAGM000006 [SPC]
D1051,52	1SS254	DIODE	2	B0AAED000003 [SPC]
D1053	MA4022-LTA	DIODE	1	[SPC]
D1054	AU01Z	DIODE	1	B0HAGM000006 [SPC]
D1101	MAZ70750AC	DIODE	1	[SPC]
D1111	21DQ06FC4	DIODE	1	B0JAMG000013 [SPC]
D1121	21DQ06FC4	DIODE	1	B0JAMG000013 [SPC]
D1126	B0EAKL000031	DIODE	1	[SPC]
D1131	11EQS10TA1	DIODE	1	B0JAML000004 [SPC]
D1132	MA7180A-TR	DIODE	1	MAZ71800AC [SPC]
D1141	11EQS10TA1	DIODE	1	B0JAML000004 [SPC]*1
D1141	B0JCME000025	DIODE	1	[SPC]*2
D1142	MA111-TX	DIODE	1	MA2J11100L [SPC]
D1145	MA8039H	DIODE	1	MAZ80390H [SPC]
D1151,52	11EQS10TA1	DIODE	2	B0JAML000004 [SPC]
D1153	VWJ0023=5	DIODE	1	[SPC]
D1161	AU01Z	DIODE	1	B0HAGM000006 [SPC]
D1162	MA4030H	DIODE	1	MAZ40300H [SPC]
D1171	AK04	DIODE	1	B0JAMC000003 [SPC]
D3251	MA111-TX	DIODE	1	MA2J11100L [SPC]
D3831,32	MA152A	DIODE	2	MA3X152A0L [SPC]
D4596	MA3047M	DIODE	1	MAZ30470M [SPC]
D4901	AK04WS	DIODE	1	B0JAME000059 [SPC]
D4921	1SS355TE-17	DIODE	1	B0ACCK000005 [SPC]
D4931	1SS355TE-17	DIODE	1	B0ACCK000005 [SPC]
D5261	MA716	DIODE	1	MA3X71600L [SPC]
D6071	MA8039H	DIODE	1	MAZ80390H [SPC]
D6072	AK04WS	DIODE	1	B0JAME000059 [SPC]
D6101	LNJ201LPQJA	LED(RED),ST-BY	1	[SPC]
D6103	LNJ301MPUJAD	LED(GREEN),RE-MASTER	1	[SPC]
D6104	LNJ401NPYJA	LED(AMBER),AUDIO-ONLY	1	[SPC]
D6105	LMW9A8BYB0A1	LED(BLUE),525P	1	LNW9A8BYBZ [SPC]
D6106	MA4051-M	DIODE	1	MAZ40510M [SPC]
D6201	LNJ301MPUJAD	LED(GREEN),DNR	1	[SPC]
D6215	MA728-TX	DIODE	1	MA2J72800L [SPC]
D6501	MA304	DIODE	1	MA2Z30400L [SPC]
D6521	MA304	DIODE	1	MA2Z30400L [SPC]
DL6001	A2BC00000038	DISPLAY TUBE	1	[SPC]
F1001	XBA2C16TB0L	FUSE	1	K5Y162B00002 [SPC] 

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
FL3501	ELB4A027B	FILTER	1	[SPC]
FL3511	ELB4B106B	FILTER	1	[SPC]
FL3551	ELB4A027B	FILTER	1	[SPC]
FL3561	ELB4C079B	FILTER	1	[SPC]
FL4201	VLF1491S105T	FILTER	1	F1J1A1050021 [SPC]
FL6251	VLF1491S104T	FILTER	1	F1J1E1040022 [SPC]
FL6252,53	VLF1491S105T	FILTER	2	F1J1A1050021 [SPC]
FL6255,56	VLF1491S105T	FILTER	2	F1J1A1050021 [SPC]
FP4701	VJS3537B016G	CONNECTOR 16P	1	K1MN16B00066 [SPC]
FP5001	K1MN30B00062	CONNECTOR 30P	1	[SPC]
FP5002	K1MN38B00005	CONNECTOR 38P	1	[SPC]
FP5003	K1MN04B00036	CONNECTOR 4P	1	[SPC]
FP5201	K1MN38A00005	CONNECTOR 38P	1	[SPC]
FP6001	VJS3537B016G	CONNECTOR 16P	1	K1MN16B00066 [SPC]
FP6002	VJS3537A006G	CONNECTOR 6P	1	K1MN06A00034 [SPC]
FP6201	VJS3537B006G	CONNECTOR 6P	1	K1MN06B00061 [SPC]
IC1101	UPC1093J-1-T	IC	1	C0DAEJC00002 [SPC]
IC1121	C0DBAMZ00003	IC	1	[SPC]
IC1125	PQ07RX11	IC	1	C0DAEZG00009 [SPC]
IC1151	SI-3090FLF11	IC	1	C0DAZH000026 [SPC]
IC2001	MN103S26EGA	IC	1	[SPC]
IC2501	C0GBG0000020	IC	1	[SPC]
IC3001	MN677531KA	IC	1	[SPC]
IC3061	C3ABPG000057	IC	1	[SPC]
IC3091	NJM2115VTE1	IC	1	C0ABBB000105 [SPC]
IC3201	C0ZBZ0000459	IC	1	[SPC]
IC3251	C0CBCBD00002	IC	1	[SPC]
IC3531	AN3581S	IC	1	[SPC]
IC3801	C9ZB00000357	IC	1	[SPC]
IC3851,52	MC14053BFL1	IC	2	C0JBAR000024 [SPC]
IC3853	BA7660FS	IC	1	[SPC]
IC3891	C0DBZJD00001	IC	1	[SPC]
IC4201	TK71533SCL	IC	1	C0DBCGB00001 [SPC]
IC4211	C0FBBK000020	IC	1	[SPC]
IC4221	PCM1746	IC	1	C0FBBK000015 [SPC]
IC4231	PCM1746	IC	1	C0FBBK000015 [SPC]
IC4241	PCM1746	IC	1	C0FBBK000015 [SPC]
IC4261	TC7W32FUTL	IC	1	C0JBAE000098 [SPC]
IC4301,02	NJM4580M	IC	2	C0ABBB000126 [SPC]
IC4321	NJM4580M	IC	1	C0ABBB000126 [SPC]
IC4341	NJM4580M	IC	1	C0ABBB000126 [SPC]
IC4361	NJM4580M	IC	1	C0ABBB000126 [SPC]
IC4701	NJM4580M	IC	1	C0ABBB000126 [SPC]
IC4731	M5218AFP	IC	1	C0ABBB000071 [SPC]
IC4751,52	AHCT1G08DBV	IC	2	C0JBAB000351 [SPC]
IC4781	B3RAE0000021	IC	1	[SPC]
IC4901	PQ09DZ1U	IC	1	C0CBCHG00001 [SPC]
IC5201	AN8703FH	IC	1	[SPC]
IC5261	C0ABHB000004	IC	1	[SPC]
IC5262	CLC58021MX	IC	1	[SPC]
IC5264	TC7W53FUTL	IC	1	C0JBAR000155 [SPC]
IC6001	MN101C35DCG	IC	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC6002	PST9327UR	IC	1	C0EBE0000094 [SPC]
IC6004	C0ZBZ0000460	IC	1	[SPC]
IC6101	B3RAD0000029	IC	1	[SPC]
IC6201	MN102H60GFB	IC	1	[SPC]
IC6211	PST596JNR	IC	1	C0EBE0000070 [SPC]
IC6221	C3EBFC000025	IC	1	[SPC]
IC6271	PQ018EZ01ZP	IC	1	C0DBCHG00001 [SPC]
IC6301	RFKFRA50G160	IC	1	[SPC]
IC6501	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6511	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6521	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6531	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6541	AHC2G74HDCTR	IC	1	C0JBAF000367 [SPC]
IC6551	AHC2G157HDCT	IC	1	[SPC]
IC6561	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6571	AHC1GU04HDCK	IC	1	C0JBAB000356 [SPC]
IC6801	MN67736WK	IC	1	[SPC]
J3871	K1FB121A0004	CONNECTOR(FEMALE) 21P	1	[SPC]
J3881	K1FB121A0004	CONNECTOR(FEMALE) 21P	1	[SPC]
J4731	VJJ0578	HEADPHONE JACK	1	[SPC]
JK3541	VJJ0561	S-VIDEO JACK	1	K1CB104B0018 [SPC]
JK4501	VJJ0643	AV OUT JACK	1	[SPC]
JK4502	VJJ0592	A OUT JACK	1	K2HA408B0035 [SPC]
JK4771	VJJ0590	D-A OUT JACK	1	[SPC]
K2002	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3002-04	ERJ3GEY0R00	1/16W 0	3	[SPC]
K3201	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3203	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3261	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3264	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3266	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3871	ERJ3GEY0R00	1/16W 0	1	[SPC]
K3881	ERJ3GEY0R00	1/16W 0	1	[SPC]
K6004	ERJ3GEY0R00	1/16W 0	1	[SPC]
K6231	ERJ3GEY0R00	1/16W 0	1	[SPC]
K6813	ERJ3GEY0R00	1/16W 0	1	[SPC]
L1001,02	ELF15N005A	NOISE FILTER	2	[SPC] 
L1111	VLQ0611K100T	COIL 10UH	1	G0A101H00004 [SPC]
L1115	ELELN100KA	INDUCTOR 10UH	1	[SPC]
L1131	VLQEL05S330K	COIL 33UH	1	G0C330KA0004 [SPC]
L1141	VLQEL05S330K	COIL 33UH	1	G0C330KA0004 [SPC]*1
L1141	TAL10RP820LB	COIL 82UH	1	G0ZZ00001916 [SPC]*2
L1145	VLQ0655K220	COIL 22UH	1	[SPC]
L1151	VLQ0611K220T	COIL 22UH	1	G0A220H00005 [SPC]
L2001,02	VLQ0910K100	COIL 10UH	2	G1C100KA0019 [SPC]
L2021	VLQ0910K100	COIL 10UH	1	G1C100KA0019 [SPC]
L2501	ERJ14Y0R00	1/4W 0	1	[SPC]
L3251	ELJEA100KF	COIL 10UH	1	[SPC]
L3501	ELESE220JA	INDUCTOR 22UH	1	[SPC]
L3531,32	ELESE220JA	INDUCTOR 22UH	2	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L3551	ELESE220JA	INDUCTOR 22UH	1	[SPC]
L3851	ELESE220JA	INDUCTOR 22UH	1	[SPC]
L3871,72	VLQEL05T471	COIL 470UH	2	G0C471JA0003 [SPC]
L3881,82	VLQEL05T471	COIL 470UH	2	G0C471JA0003 [SPC]
L4301	ELESE101JA	INDUCTOR 100UH	1	[SPC]
L4761	ELJNDR10JF	COIL 1UH	1	[SPC]
L4781	ELESE220JA	INDUCTOR 22UH	1	[SPC]
L5201,02	ELJEA100KF	COIL 10UH	2	[SPC]
L6001	VLQEL05T101J	COIL 100UH	1	G0C101JA0003 [SPC]
L6002-05	JAL45RA100J	COIL 100UH	4	G0C100JA0003 [SPC]
L6101	VLQEL05T221J	COIL 220UH	1	G0C221JA0003 [SPC]
L6501	VLQ0909J220	COIL 22UH	1	G1C220JA0010 [SPC]
LA4201	EXBV8VR000	RESISTOR-RESISTOR	1	[SPC]
LA6211,12	EXBV8VR000	RESISTOR-RESISTOR	2	[SPC]
LB1021	VLP0056-T	COIL	1	J0JKB0000003 [SPC]
LB3001,02	JALBK2HS470T	COIL 47UH	2	G1CYYYZ00003 [SPC]
LB3091	VLP0323A601R	SHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB3203-07	ERJ3GEY0R00	1/16W 0	5	[SPC]
LB3543-46	ERJ3GEY0R00	1/16W 0	4	[SPC]
LB3871-74	JALBK2HM601T	COIL 600UH	4	J0JCC0000120 [SPC]
LB3881	JALBK2HM601T	COIL 600UH	1	J0JCC0000120 [SPC]
LB4201-11	ERJ3GEY0R00	1/16W 0	11	[SPC]
LB4701-16	J0JCC0000077	COIL	16	[SPC]
LB4771,72	ERJ3GEY0R00	1/16W 0	2	[SPC]
LB5001,02	VLP0323A601R	CHIP SOLID INDUCTOR	2	J0JCC0000062 [SPC]
LB5201,02	ERJ3GEY0R00	1/16W 0	2	[SPC]
LB5203-07	ERJ6GEY0R00	1/10W 0	5	[SPC]
LB5208-14	ERJ3GEY0R00	1/16W 0	7	[SPC]
LB5215	ERJ6GEY0R00	1/10W 0	1	[SPC]
LB5216-29	ERJ3GEY0R00	1/16W 0	14	[SPC]
LB6001-03	ERJ3GEY0R00	1/16W 0	3	[SPC]
LB6005-28	ERJ3GEY0R00	1/16W 0	24	[SPC]
LB6201	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6202	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6211-14	ERJ3GEY0R00	1/16W 0	4	[SPC]
LB6216-18	ERJ3GEYJ101	1/16W 100	3	D0GB101JA002 [SPC]
LB6219-21	ERJ3GEY0R00	1/16W 0	3	[SPC]
LB6251	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6501	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6511	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6512	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6521	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6531	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6532	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6541	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6542	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6551	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6552	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6561	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6571	VLP0323A601R	CHIP SOLID INDUCTOR	1	J0JCC0000062 [SPC]
LB6572	VLP0155-T	CHIP SOLID INDUCTOR	1	J0JCC0000119 [SPC]
LB6801,02	JALBK2HS470T	COIL 47UH	2	G1CYYYZ00003 [SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LR1041	J1ZZA0000001	COIL	1	[SPC]
P1001	VJS3166-1	AC INLET	1	K2AA2B000002 [SPC] 
PC1	RPG5435	PACKING CASE	1	[SPC](E)
PC1	RPG5436	PACKING CASE	1	[SPC](EB)
PC1	RPG5434	PACKING CASE	1	[SPC](EG)
PC2	VPN5296	CUSHION(L)	1	[SPC]
PC3	VPN5297	CUSHION(R)	1	[SPC]
PC4	VPF0693	POLYETHYLENE BAG	1	[SPC]
PC5	VPN5343	SPACER	2	[SPC](EB)
PP1101	VJP4223E018B	CONNECTOR (MALE) 18P	1	K1KA18A00045 [SPC]
PP1102	VJP4369A014B	CONNECTOR (MALE) 14P	1	[SPC]
PP3201	K1KA10A00278	CONNECTOR (MALE) 10P	1	[SPC]
PP3801	VJP3042G019W	CONNECTOR (MALE) 19P	1	K1KA19A00011 [SPC]
PP4201	VJP4369E026B	CONNECTOR (MALE) 26P	1	K1KA26A00089 [SPC]
PP6001	K1KA18A00060	CONNECTOR (MALE) 18P	1	[SPC]
PP6002	VJP3233A002	CONNECTOR (MALE) 2P	1	K1KA02A00010 [SPC]
PR1161	VSF0015A025	IC PROTECTOR	1	D4FAR2500001 [SPC] 
PR1171	VSF0015A10T	IC PROTECTOR	1	B1ZAZ0000030 [SPC] 
PR4911	VSF0015A10T	IC PROTECTOR	1	B1ZAZ0000030 [SPC] 
PS1101	VJS4223E018T	CONNECTOR(FEMALE) 18P	1	K1KB18A00026 [SPC]
PS3201	K1KB10A00092	CONNECTOR(FEMALE) 10P	1	[SPC]
PS3801	VJS3042F019W	CONNECTOR(FEMALE) 19P	1	K1KB19B00005 [SPC]
PS4201	VJS4222C026B	CONNECTOR(FEMALE) 26P	1	K1KB26A00027 [SPC]
PS6201	VJS2961C010	CONNECTOR(FEMALE) 10P	1	K1KB10A00075 [SPC]
PS6202	VJS4222C014B	CONNECTOR(FEMALE) 14P	1	K1KB14A00037 [SPC]
PS6251	VJS4222C014B	CONNECTOR(FEMALE) 14P	1	K1KB14A00037 [SPC]
Q1021	2SC4908LF654	TRANSISTOR	1	B1BACT000012 [SPC]
Q1051	PS2561L1	PHOTO COUPLER	1	[SPC] 
Q1052	2SD1996-STA	TRANSISTOR	1	2SD19960SA [SPC]
Q1061	2SD1996-STA	TRANSISTOR	1	2SD19960SA [SPC]
Q1062	2SC3311A-S	TRANSISTOR	1	2SC3311AS [SPC]
Q1063	2SD1996-STA	TRANSISTOR	1	2SD19960SA [SPC]
Q1115	2SJ525TP	TRANSISTOR	1	B1DGDD000001 [SPC]
Q1141	2SA2012	TRANSISTOR	1	[SPC]
Q1142	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q2001	2SD1819ATX	TRANSISTOR	1	2SD1819A0L [SPC]
Q3221	2SB1218A-R	TRANSISTOR	1	2SB1218AR [SPC]
Q3226	2SB1218A-R	TRANSISTOR	1	2SB1218AR [SPC]
Q3231	2SB1218A-R	TRANSISTOR	1	2SB1218AR [SPC]
Q3236	2SB1218A-R	TRANSISTOR	1	2SB1218AR [SPC]
Q3241	2SB1218A-R	TRANSISTOR	1	2SB1218AR [SPC]
Q3501	2SB709A-RSTX	TRANSISTOR	1	2SB0709AHL [SPC]
Q3511	2SB709A-RSTX	TRANSISTOR	1	2SB0709AHL [SPC]
Q3551	2SC2295-BC	TRANSISTOR	1	2SC22950XL [SPC]
Q3552	2SA1022-B	TRANSISTOR	1	2SA10220B [SPC]
Q3553	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q3561	2SC2295-BC	TRANSISTOR	1	2SC22950XL [SPC]
Q3562	2SA1022-B	TRANSISTOR	1	2SA10220B [SPC]
Q3563	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q3571	2SC2295-BC	TRANSISTOR	1	2SC22950XL [SPC]
Q3572	2SA1022-B	TRANSISTOR	1	2SA10220B [SPC]
Q3573	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q3831	XN4402	TRANSISTOR	1	XN04402 [SPC]
Q3832	XN4401	TRANSISTOR	1	XN04401 [SPC]
Q3833	2SB710-R	TRANSISTOR	1	2SB07100R [SPC]
Q4381	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4501	2SD1328	TRANSISTOR	1	2SD132806 [SPC]
Q4502	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4511	2SD1328	TRANSISTOR	1	2SD132806 [SPC]
Q4512	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4521	2SD1328	TRANSISTOR	1	2SD132806 [SPC]
Q4531	2SD1328	TRANSISTOR	1	2SD132806 [SPC]
Q4541	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4551	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4561	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4571	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4591	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4721,22	2SD1328	TRANSISTOR	2	2SD132806 [SPC]
Q4901	2SB709A-RSTX	TRANSISTOR	1	2SB0709AHL [SPC]
Q4911	2SB1434RSTA	TRANSISTOR	1	2SB14340HA [SPC]
Q4912	2SB1320A-RTA	TRANSISTOR	1	2SB1320ARA [SPC]
Q4913	2SD601A-RSTX	TRANSISTOR	1	2SD0601AHL [SPC]
Q4921	2SK170V	TRANSISTOR	1	B1CACE000006 [SPC]
Q4931	2SJ74V	TRANSISTOR	1	B1CCCC000003 [SPC]
Q5211	2SB1115-T	TRANSISTOR	1	B1BDBF000004 [SPC]
Q5215	2SB1115-T	TRANSISTOR	1	B1BDBF000004 [SPC]
Q5261,62	2SC3930-BC	TRANSISTOR	2	2SC39300XL [SPC]
Q5263	2SA1532-BC	TRANSISTOR	1	2SA15320XL [SPC]
Q5264	2SC3930-BC	TRANSISTOR	1	2SC39300XL [SPC]
Q5271	UN5211	TRANSISTOR	1	UNR5211 [SPC]
Q6001	2SD1996-RSTA	TRANSISTOR	1	2SD19960HA [SPC]
Q6071	2SD1992A-R	TRANSISTOR	1	[SPC]
Q6215	UN5212-TX	TRANSISTOR	1	UNR521200L [SPC]
QR1115	UN4213	TRANSISTOR	1	UNR4213 [SPC]
QR3831	UN2217	TRANSISTOR	1	UNR2217 [SPC]
QR4201	UN2111	TRANSISTOR	1	UNR2111 [SPC]
QR4202	UN2215	TRANSISTOR	1	UNR2215 [SPC]
QR4381	UN2211	TRANSISTOR	1	UNR2211 [SPC]
QR4382	UN2111	TRANSISTOR	1	UNR2111 [SPC]
QR4591	UN2211	TRANSISTOR	1	UNR2211 [SPC]
QR4593	UN2211	TRANSISTOR	1	UNR2211 [SPC]
QR4594	UN2111	TRANSISTOR	1	UNR2111 [SPC]
QR5221	UN2121-TX	TRANSISTOR	1	UNR212100L [SPC]
QR5241	UN511M-TX	TRANSISTOR	1	[SPC]
QR6001	DTA123JK-T96	TRANSISTOR	1	B1GDCFEM0002 [SPC]
QR6003	DTC123JK-T96	TRANSISTOR	1	[SPC]
R1002	ERC12AGM334	330K	1	[SPC] 
R1031,32	ERDS2FJ224	1/4W 220K	2	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1041,42	ERDS2TJ334	1/4W 330K	2	[SPC]
R1043	ERG2SJ680	2W 68	1	[SPC]
R1051	ERDS2TJ750	1/4W 75	1	[SPC]
R1052	ERDS2TJ2R2	1/4W 2.2	1	[SPC]
R1053	ERDS2TJ331	1/4W 330	1	[SPC]
R1054	ER0S2CKG6800	1/4W 680	1	[SPC]
R1061	ERDS2TJ103	1/4W 10K	1	[SPC]
R1062,63	ERDS2TJ105	1/4W 1M	2	[SPC]
R1064	ERDS2TJ183	1/4W 18K	1	[SPC]
R1065	ERDS2TJ332	1/4W 3.3K	1	[SPC]
R1066	ERDS2TJ473	1/4W 47K	1	[SPC]
R1101	ERDS2TJ750	1/4W 75	1	[SPC]
R1102,03	ER0S2CKF1201	1/4W 1.2K	2	[SPC]
R1104	ERDS2TJ561	1/4W 560	1	[SPC]
R1105	ERDS2TJ271	1/4W 270	1	[SPC]
R1106	ERDS2TJ392	1/4W 3.9K	1	[SPC]
R1107	ERDS2TJ472	1/4W 4.7K	1	[SPC]
R1115	ERDS2TJ104	1/4W 100K	1	[SPC]
R1116	ERDS2TJ102	1/4W 1K	1	[SPC]
R1120	ERJ3GEYJ823	1/16W 82K	1	[SPC]
R1121	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R1124	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R1125	ERDS2TJ101	1/4W 100	1	[SPC]*1
R1125	ERJ3GEYJ683	1/16W 68K	1	[SPC]*2
R1126	ER0S2CKF1201	1/4W 1.2K	1	[SPC]*1
R1126	ERJ3GEYJ752	1/16W 7.5K	1	[SPC]*2
R1127	ER0S2CKF1201	1/4W 1.2K	1	[SPC]*1
R1127	ERJ3RBD123	1/16W 12K	1	[SPC]*2
R1128	ERJ3RBD303	1/16W 30K	1	ERJ3RBD303V [SPC]
R1129	ERJ3GEYJ153	1/16W 15K	1	[SPC]
R1130	ERJ3GEYJ752	1/16W 7.5K	1	[SPC]
R1133	ERJ8GEYJR56	1/8W 0.56	1	[SPC]
R1141	ERJ6GEYJ681	1/10W 680	1	[SPC]
R1142	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R1143,44	ERJ8GEYJR56	1/8W 0.56	2	[SPC]
R1161	ERDS2TJ104	1/4W 100K	1	[SPC]
R1181	ERDS2TJ101	1/4W 100	1	[SPC]
R2020	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R2021	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R2022,23	ERJ3GEYJ752	1/16W 7.5K	2	[SPC]
R2025,26	ERJ3GEYJ223	1/16W 22K	2	[SPC]
R2027,28	ERJ3GEYJ563	1/16W 56K	2	[SPC]
R2029,30	ERJ3GEYJ102	1/16W 1K	2	[SPC]
R2031,32	ECUX1H331JCV	50V 330P	2	F1H1H3310005 [SPC]
R2033	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R2034	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R2035	ERJ3GEYJ272	1/16W 2.7K	1	[SPC]
R2036	ERJ3GEY0R00	1/16W 0	1	[SPC]
R2037	ERJ3GEYJ683	1/16W 68K	1	[SPC]
R2038	ERJ3GEYJ153	1/16W 15K	1	[SPC]
R2039	ERJ3GEYJ105	1/16W 1M	1	[SPC]
R2040,41	ERJ3GEYJ822	1/16W 8.2K	2	[SPC]
R2042-46	ERJ3GEYJ153	1/16W 15K	5	[SPC]
R2047,48	ERJ3GEYJ475	1/16W 4700K	2	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R2049	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R2053,54	ERJ3GEYJ473	1/16W 47K	2	[SPC]
R2501-03	ERJ3GEY0R00	1/16W 0	3	[SPC]
R2504,05	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002 [SPC]
R2506	ERJ3GEY0R00	1/16W 0	1	[SPC]
R3001	ERJ3GEYJ220	1/16W 22	1	[SPC]
R3002	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R3006,07	ERJ3GEY0R00	1/16W 0	2	[SPC]
R3012	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3013	ERJ3GEYJ684	1/16W 680K	1	D0GB684JA002 [SPC]
R3014-16	ERJ3GEYJ101	1/16W 100	3	D0GB101JA002 [SPC]
R3017	ERJ3GEYJ684	1/16W 680K	1	D0GB684JA002 [SPC]
R3018	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3031	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3061	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3091,92	ERJ3GEYG223	1/16W 22K	2	[SPC]
R3093	ERJ3GEYJ333	1/16W 33K	1	[SPC]
R3094	ERJ3GEYJ153	1/16W 15K	1	[SPC]
R3095	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R3096	ERJ3GEYJ273	1/16W 27K	1	[SPC]
R3097	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R3098	ERJ3GEYJ273	1/16W 27K	1	[SPC]
R3201,02	ERJ3GEYJ101	1/16W 100	2	D0GB101JA002 [SPC]
R3203	ERJ3GEYJ821	1/16W 820	1	[SPC]
R3204	ERJ3GEYJ221	1/16W 220	1	[SPC]
R3205	ERJ3RBD201	1/16W 200	1	[SPC]
R3207	ERJ3RBD511	1/16W 510	1	[SPC]
R3221	ERJ3GEYJ820	1/16W 82	1	[SPC]
R3222	ERJ3GEYJ221	1/16W 220	1	[SPC]
R3223	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3224	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3226	ERJ3GEYJ151	1/16W 150	1	[SPC]
R3227	ERJ3GEYJ221	1/16W 220	1	[SPC]
R3228	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3229	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3231	ERJ3RBD221	1/16W 220	1	[SPC]
R3232	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3233	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3236	ERJ3RBD221	1/16W 220	1	[SPC]
R3237	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3238	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3241	ERJ3RBD221	1/16W 220	1	[SPC]
R3242	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3243	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3501	ERJ3GEYJ561	1/16W 560	1	[SPC]
R3502	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3503	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3511	ERJ3GEYJ561	1/16W 560	1	[SPC]
R3512	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R3513	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3527	ERJ3GEY0R00	1/16W 0	1	[SPC]
R3531	ERJ3GEYG102	1/16W 1K	1	[SPC]
R3532	ERJ3GEYG112	1/16W 1.1K	1	[SPC]
R3533	ERJ3GEYG102	1/16W 1K	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3534	ERJ3GEYG511	1/16W 510	1	[SPC]
R3535	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3543,44	ERJ3EKF75R0V	3W 75	2	[SPC]
R3545,46	ERJ3EKF78R7V	3W 78.7	2	[SPC]
R3551	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R3552	ERJ3GEYJ471	1/16W 470	1	[SPC]
R3553	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R3554	ERJ3GEYJ331	1/16W 330	1	[SPC]
R3555	ERJ3GEYJ561	1/16W 560	1	[SPC]
R3556	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3557	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3558	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3559	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3561	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R3562	ERJ3GEYJ471	1/16W 470	1	[SPC]
R3563	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R3564	ERJ3GEYJ331	1/16W 330	1	[SPC]
R3565	ERJ3GEYJ561	1/16W 560	1	[SPC]
R3566	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3567	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3568	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3569	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3571	ERJ3GEYJ183	1/16W 18K	1	[SPC]
R3572	ERJ3GEYJ471	1/16W 470	1	[SPC]
R3573	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R3574	ERJ3GEYJ331	1/16W 330	1	[SPC]
R3575	ERJ3GEYJ561	1/16W 560	1	[SPC]
R3576	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3577	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3578	ERJ3GEYJ330	1/16W 33	1	[SPC]
R3579	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R3801-03	ERJ3GEYF151	1/16W 150	3	[SPC]
R3804	ERJ3GEYF161	1/16W 160	1	[SPC]
R3805	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3806	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R3807	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3808	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R3809	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3810	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R3811	ERJ3GEYF121V	1/16W 120	1	[SPC]
R3812	ERJ3GEYF131V	1/16W 130	1	[SPC]
R3831	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R3832	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R3833,34	ERJ3GEYJ103	1/16W 10K	2	[SPC]
R3835	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R3836	ERJ3GEYJ680	1/16W 68	1	ERJ3GEYJ680V [SPC]
R3837-39	ERJ3GEYJ472	1/16W 4.7K	3	[SPC]
R3840	ERJ3GEYJ153	1/16W 15K	1	[SPC]
R3841	ERJ3GEYJ273	1/16W 27K	1	[SPC]
R3842	ERJ3GEYJ471	1/16W 470	1	[SPC]
R3851	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3852	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3853	ERJ3GEYJ333	1/16W 33K	1	[SPC]
R3854	ERJ3GEYJ562	1/16W 5.6K	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3855	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3856	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3857	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3858	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3859	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3860	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3861	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3862	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3863	ERJ3GEYG333	1/16W 33K	1	[SPC]
R3864	ERJ3GEYG562	1/16W 5.6K	1	[SPC]
R3865	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R3871	ERJ3GEYJ821	1/16W 820	1	[SPC]
R3872	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3873	ERJ3GEYJ821	1/16W 820	1	[SPC]
R3874	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R3875-79	ERJ3EKF75R0V	3W 75	5	[SPC]
R3881-84	ERJ3GEYJ101	1/16W 100	4	D0GB101JA002 [SPC]
R3885-87	ERJ3GEYJ750	1/16W 75	3	[SPC]
R3888,89	ERJ3EKF75R0V	3W 75	2	[SPC]
R3903	ERJ3GEY0R00	1/16W 0	1	[SPC]
R4211	ERJ3GEYJ331	1/16W 330	1	[SPC]
R4221	ERJ3GEYJ331	1/16W 330	1	[SPC]
R4231	ERJ3GEYJ331	1/16W 330	1	[SPC]
R4241	ERJ3GEYJ331	1/16W 330	1	[SPC]
R4261-63	ERJ3GEYJ103	1/16W 10K	3	[SPC]
R4301	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4302	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4303	JAR1220P562D	1/10W 5600	1	[SPC]
R4304	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4305,06	JAR1220P682D	1/10W 6800	2	D0HD682ZA002 [SPC]
R4307	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4308,09	JAR1220P153D	1/10W 15K	2	[SPC]
R4311	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4312	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4313	JAR1220P562D	1/10W 5600	1	[SPC]
R4314	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4317	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4321	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4322	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4323	JAR1220P103D	1/10W 10K	1	[SPC]
R4324	JAR0816P822D	8200	1	D0HB822ZA002 [SPC]
R4325-27	ERJ3GEYJ473	1/16W 47K	3	[SPC]
R4331	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4332	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4333	JAR1220P103D	1/10W 10K	1	[SPC]
R4334	JAR0816P822D	8200	1	D0HB822ZA002 [SPC]
R4337	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4341	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4342	JAR1220P472D	1/10W 4700	1	[SPC]
R4343	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4344	JAR1220P203D	1/10W 20K	1	[SPC]
R4347	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4351	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4352	JAR1220P472D	1/10W 4700	1	[SPC]

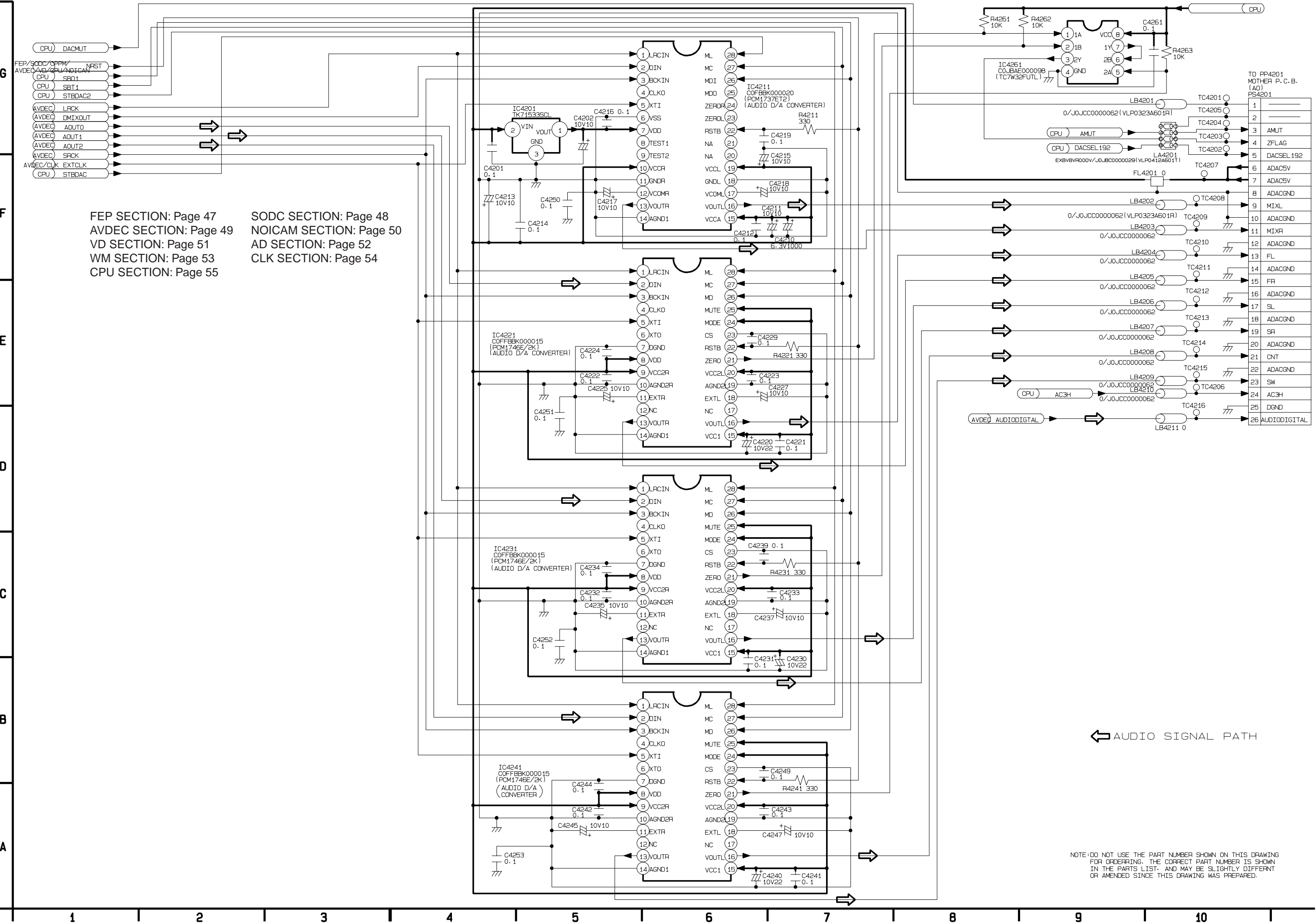
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4353	JAR1220P392D	1/10W 3.9K	1	[SPC]
R4354	JAR1220P203D	1/10W 20K	1	[SPC]
R4357	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4361	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4362	JAR1220P472D	1/10W 4700	1	[SPC]
R4363	JAR0816P392D	3900	1	D0HB392ZA002 [SPC]
R4364	JAR1220P203D	1/10W 20K	1	[SPC]
R4367	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4371	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R4372	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R4373	D0HB823ZA002	50V 0.082U	1	[SPC]
R4374	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R4375	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R4376	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R4377	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R4378	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R4381	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R4501	JAR1220P821D	1/10W 820	1	[SPC]
R4502	JAR1220P221D	1/10W 220	1	[SPC]
R4503-05	ERJ3GEYJ821	1/16W 820	3	[SPC]
R4511	JAR1220P821D	1/10W 820	1	[SPC]
R4512	JAR1220P221D	1/10W 220	1	[SPC]
R4513-15	ERJ3GEYJ821	1/16W 820	3	[SPC]
R4521	JAR1220P821D	1/10W 820	1	[SPC]
R4522	JAR1220P221D	1/10W 220	1	[SPC]
R4523	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4531	JAR1220P821D	1/10W 820	1	[SPC]
R4532	JAR1220P221D	1/10W 220	1	[SPC]
R4533	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4541	JAR1220P821D	1/10W 820	1	[SPC]
R4542	ERJ3GEYJ221	1/16W 220	1	[SPC]
R4543	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4551	JAR1220P821D	1/10W 820	1	[SPC]
R4552	ERJ3GEYJ221	1/16W 220	1	[SPC]
R4553	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4561	JAR1220P821D	1/10W 820	1	[SPC]
R4562	ERJ3GEYJ221	1/16W 220	1	[SPC]
R4563	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4571	ERJ6GEYJ821	1/10W 820	1	[SPC]
R4572	ERJ3GEYJ221	1/16W 220	1	[SPC]
R4573	ERJ3GEYJ821	1/16W 820	1	[SPC]
R4590	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R4591	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R4594	ERJ8GEYJ102	1/8W 1K	1	[SPC]
R4596	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R4598	ERJ6GEYJ222	1/10W 2.2K	1	[SPC]
R4721,22	ERJ3GEYJ471	1/16W 470	2	[SPC]
R4723,24	ERJ3GEYJ821	1/16W 820	2	[SPC]
R4731,32	ERJ8GEYJ470	1/8W 47	2	[SPC]
R4733,34	ERJ3GEYJ153	1/16W 15K	2	[SPC]
R4735,36	ERJ3GEYJ123	1/16W 12K	2	[SPC]
R4737,38	ERJ3GEYJ102	1/16W 1K	2	[SPC]
R4761	ERJ3GEYJ100	1/16W 10	1	[SPC]
R4771	ERJ6GEYJ750	1/10W 75	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4901	ERJ6RBD822	1/10W 8.2K	1	[SPC]
R4902	ERJ6RBD152	1/10W 1.5K	1	[SPC]
R4903	ERJ6GEYJ333	1/10W 33K	1	[SPC]
R4911	ERJ6RBD822	1/10W 8.2K	1	[SPC]
R4912	ERJ6GEYJ331	1/10W 330	1	[SPC]
R4913	ERJ6GEYJ103	1/10W 10K	1	[SPC]
R4921	ERJ6GEYJ561	1/10W 560	1	[SPC]
R4922	ERJ6GEYJ105	1/10W 1M	1	[SPC]
R4931	ERJ6GEYJ561	1/10W 560	1	[SPC]
R4932	ERJ6GEYJ105	1/10W 1M	1	[SPC]
R5001,02	ERJ3GEYJ560	1/16W 56	2	[SPC]
R5211	ERJ3GEYJ2R2	1/16W 2.2	1	[SPC]
R5212	ERJ12YJ270	1/2W 27	1	[SPC]
R5213	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R5214	ERJ3GEYJ223	1/16W 22K	1	[SPC]
R5215	ERJ3GEYJ2R2	1/16W 2.2	1	[SPC]
R5216	ERJ12YJ270	1/2W 27	1	[SPC]
R5217	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R5221	ERJ3GEY0R00	1/16W 0	1	[SPC]
R5231,32	ERJ3GEYJ822	1/16W 8.2K	2	[SPC]
R5233	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R5241	ERJ3GEYJ221	1/16W 220	1	[SPC]
R5242	ERJ3GEYJ823	1/16W 82K	1	[SPC]
R5256	ERJ3GEYF223	1/16W 22K	1	[SPC]
R5257	ERJ3GEYJ182	1/16W 1.8K	1	[SPC]
R5258	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R5261,62	ERJ3GEYJ561	1/16W 560	2	[SPC]
R5263	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R5264	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R5265	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R5266	ERJ3GEYJ563	1/16W 56K	1	[SPC]
R5267	ERJ3GEYJ334	1/16W 330K	1	D0GB334JA002 [SPC]
R5268	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R5269	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R5270	ERJ3GEYJ273	1/16W 27K	1	[SPC]
R5271,72	ERJ3GEY0R00	1/16W 0	2	[SPC]
R5281,82	ERJ3GEYJ105	1/16W 1M	2	[SPC]
R5286,87	ERJ3GEYJ680	1/16W 68	2	ERJ3GEYJ680V [SPC]
R5288	ERJ3GEYJ562	1/16W 5.6K	1	[SPC]
R5289	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R5290	ERJ3GEYJ562	1/16W 5.6K	1	[SPC]
R5291	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R5292	ERJ3GEYJ562	1/16W 5.6K	1	[SPC]
R5293	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R5294	ERJ3GEYJ562	1/16W 5.6K	1	[SPC]
R5295	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R5297	ERJ3GEYJ101	1/16W 100	1	D0GB101JA002 [SPC]
R5304,05	ERJ3GEY0R00	1/16W 0	2	[SPC]
R6001	ERJ3GEYJ271	1/16W 270	1	[SPC]
R6003	ERJ3GEYJ331	1/16W 330	1	[SPC]
R6005-07	ERJ3GEYJ103	1/16W 10K	3	[SPC]
R6008	ERJ3GEY0R00	1/16W 0	1	[SPC]
R6009	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R6010	ERJ3GEYJ122	1/16W 1.2K	1	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6011-23	ERJ3GEYJ473	1/16W 47K	13	[SPC]
R6024	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R6025-38	ERJ3GEYJ473	1/16W 47K	14	[SPC]
R6039	ERJ3GEYJ122	1/16W 1.2K	1	[SPC]
R6040	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R6041	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R6042,43	ERJ3GEYJ102	1/16W 1K	2	[SPC]
R6044	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R6047	ERJ3GEYJ221	1/16W 220	1	[SPC]
R6048	ERJ3GEYJ303	1/16W 30K	1	[SPC]
R6049	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R6053-56	ERJ3GEYJ473	1/16W 47K	4	[SPC]
R6057-59	ERJ3GEYJ103	1/16W 10K	3	[SPC]
R6060	ERJ3GEYJ271	1/16W 270	1	[SPC]
R6062,63	ERJ3GEYJ331	1/16W 330	2	[SPC]
R6064	ERJ3GEYJ221	1/16W 220	1	[SPC]
R6067,68	ERJ3GEYJ473	1/16W 47K	2	[SPC]
R6071	ERJ6GEYJ221	1/10W 220	1	[SPC]
R6101	ERJ3GEYJ332	1/16W 3.3K	1	[SPC]
R6102	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R6103	ERJ3GEYJ152	1/16W 1.5K	1	[SPC]
R6104	ERJ3GEYJ122	1/16W 1.2K	1	[SPC]
R6105	ERJ3GEYJ221	1/16W 220	1	[SPC]
R6201	ERJ3GEYJ473	1/16W 47K	1	[SPC]*3
R6201	ERJ3GEYJ122	1/16W 1.2K	1	[SPC]*4
R6202	ERJ3GEYJ103	1/16W 10K	1	[SPC]*3
R6202	ERJ3GEYJ122	1/16W 1.2K	1	[SPC]*4
R6203	ERJ3GEYJ103	1/16W 10K	1	[SPC]*3
R6203	ERJ3GEYJ152	1/16W 1.5K	1	[SPC]*4
R6204	ERJ3GEYJ222	1/16W 2.2K	1	[SPC]
R6205	ERJ3GEYJ103	1/16W 10K	1	[SPC]*3
R6205	ERJ3GEYJ332	1/16W 3.3K	1	[SPC]*4
R6206	ERJ3GEYJ103	1/16W 10K	1	[SPC]*3
R6206	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]*4
R6207	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]*3
R6207	ERJ3GEYJ682	1/16W 6.8K	1	[SPC]*4
R6208	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R6209	ERJ3GEYJ473	1/16W 47K	1	[SPC]
R6210	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R6211	ERJ3GEYJ472	1/16W 4.7K	1	[SPC]
R6215	ERJ3GEYJ103	1/16W 10K	1	[SPC]
R6216	ERJ3GEYJ102	1/16W 1K	1	[SPC]
R6501	ERJ3GEYJ105	1/16W 1M	1	[SPC]
R6502	ERJ3RBD221	1/16W 220	1	[SPC]
R6503	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R6521	ERJ3GEYJ105	1/16W 1M	1	[SPC]
R6522	ERJ3RBD221	1/16W 220	1	[SPC]
R6523	ERJ3GEYJ104	1/16W 100K	1	[SPC]
R6561	ERJ3GEYJ105	1/16W 1M	1	[SPC]
R6562	ERJ3RBD331	1/16W 330	1	[SPC]
R6571	ERJ3GEY0R00	1/16W 0	1	[SPC]
R6801	ERJ3GEYJ473	1/16W 47K	1	[SPC]
RA2021	EXBV4V102J	RESISTOR-RESISTOR	1	D1H41022A001 [SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RA2022	EXBV4V472J	RESISTOR-RESISTOR	1	[SPC]
RA2501	EXBV8V473J	RESISTOR-RESISTOR	1	EXBV8V473JV [SPC]
RA3001	EXBV4V102J	RESISTOR-RESISTOR	1	D1H41022A001 [SPC]
RA3002-08	EXBV8V820J	RESISTOR-RESISTOR	7	[SPC]
RA3031-33	EXBV4VR000	RESISTOR-RESISTOR	3	[SPC]
RA3201,02	EXBV8V103J	RESISTOR-RESISTOR	2	D0GZ103J0001 [SPC]
RA3905,06	EXBV8V471J	RESISTOR-RESISTOR	2	EXBV8V471JV [SPC]
RA5001	EXBV4V560J	RESISTOR-RESISTOR	1	[SPC]
RA5002,03	EXBV8V560J	RESISTOR-RESISTOR	2	[SPC]
RA5201	EXBV8V101J	RESISTOR-RESISTOR	1	[SPC]
RA6201,02	EXBV4V103J	RESISTOR-RESISTOR	2	EXBV4V103JV [SPC]
RA6203	EXBV4V472J	RESISTOR-RESISTOR	1	[SPC]
RA6204	EXBV4V103J	RESISTOR-RESISTOR	1	EXBV4V103JV [SPC]
RA6205	EXBV8V103J	RESISTOR-RESISTOR	1	D0GZ103J0001 [SPC]
RA6206	EXBV4V473J	RESISTOR-RESISTOR	1	EXBV4V473JV [SPC]
RY4201	VSY2180	RELAY	1	[SPC]
S6101	EVQ11G07K	SWITCH(525P)	1	[SPC]
S6102	EVQ11G07K	SWITCH(AUDIO ONLY)	1	[SPC]
S6103	EVQ11G07K	SWITCH(RE-MASTER)	1	[SPC]
S6104	EVQ11G07K	SWITCH(POWER)	1	[SPC]
S6201	EVQ11G07K	SWITCH(PAUSE)	1	[SPC]
S6202	EVQ11G07K	SWITCH(FWD-SKIP)	1	[SPC]
S6203	EVQ11G07K	SWITCH(OPEN/CLOSE)	1	[SPC]
S6204	EVQ11G07K	SWITCH(PLAY)	1	[SPC]
S6205	EVQ11G07K	SWITCH(RVS-SKIP)	1	[SPC]
S6206	EVQ11G07K	SWITCH(STOP)	1	[SPC]
S6207	EVQ11G07K	SWITCH(GROUP)	1	[SPC]
S6208	EVQ11G07K	SWITCH(DNR)	1	[SPC]
SW2601	RSH1A048-A	DOUBLE SWITCH	1	[SPC]
T1021	ETS29AS136AC	TRANSFORMER	1	[SPC]
T4761	VLQ0790	TRANSFORMER	1	G4BYB0000001 [SPC]
VR3221	VRV0293B201T	V.RESISTOR(C ADJ.)	1	[SPC]
VR3225	VRV0293B201T	V.RESISTOR(Y ADJ.)	1	[SPC]
VR4721	EVJCAEF01A14	V.RESISTOR(HP)	1	[SPC]
X6001	H2B800400007	CERAMIC OSCILLATOR	1	[SPC]
X6501	VSX1044	CRYSTAL OSCILLATOR	1	H0J368500003 [SPC]
X6521	VSX1045	CRYSTAL OSCILLATOR	1	H0J338500008 [SPC]
X6561	VSX0944	CRYSTAL OSCILLATOR	1	H0J270500012 [SPC]

H010300000TK/TH



G

F

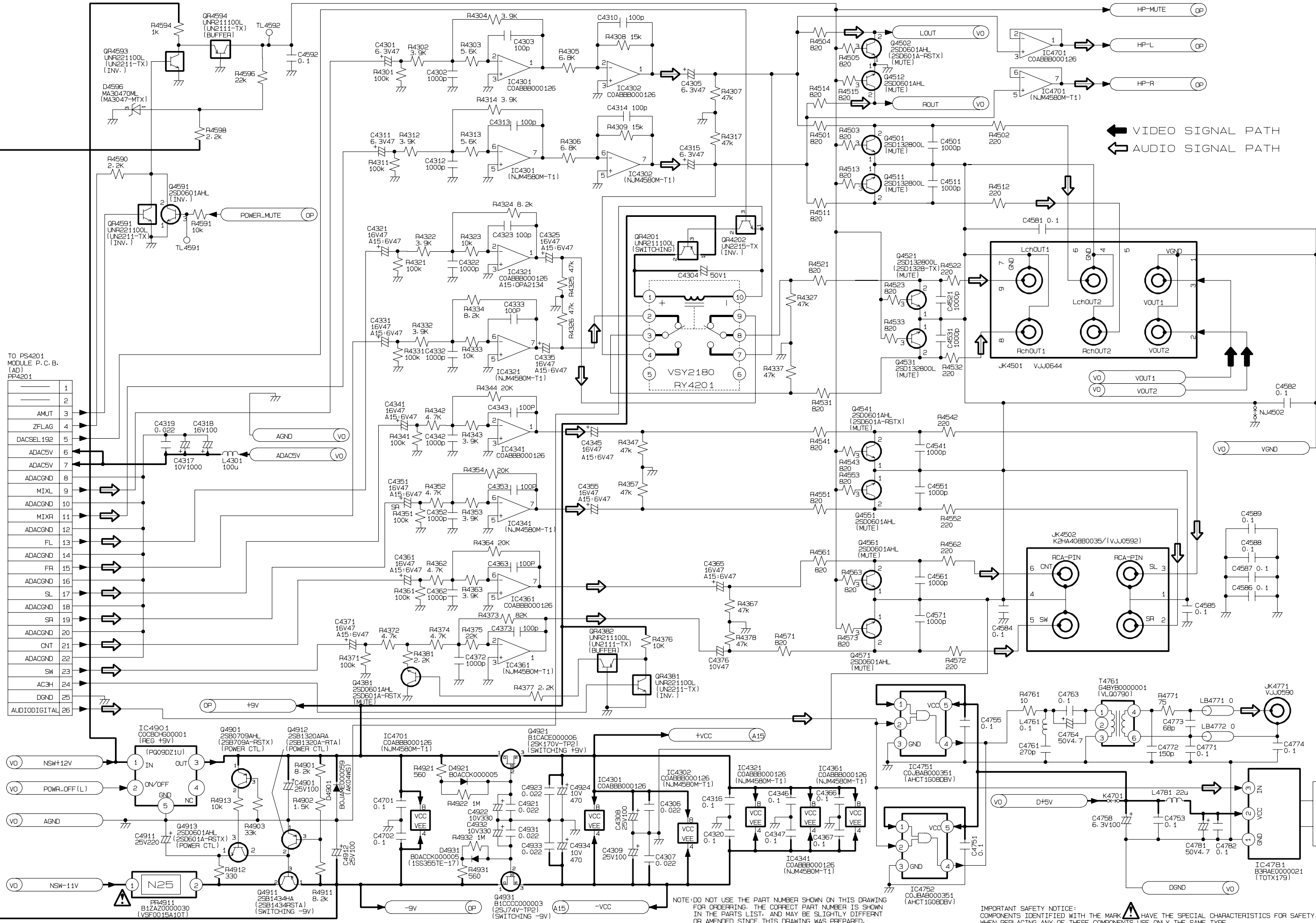
E

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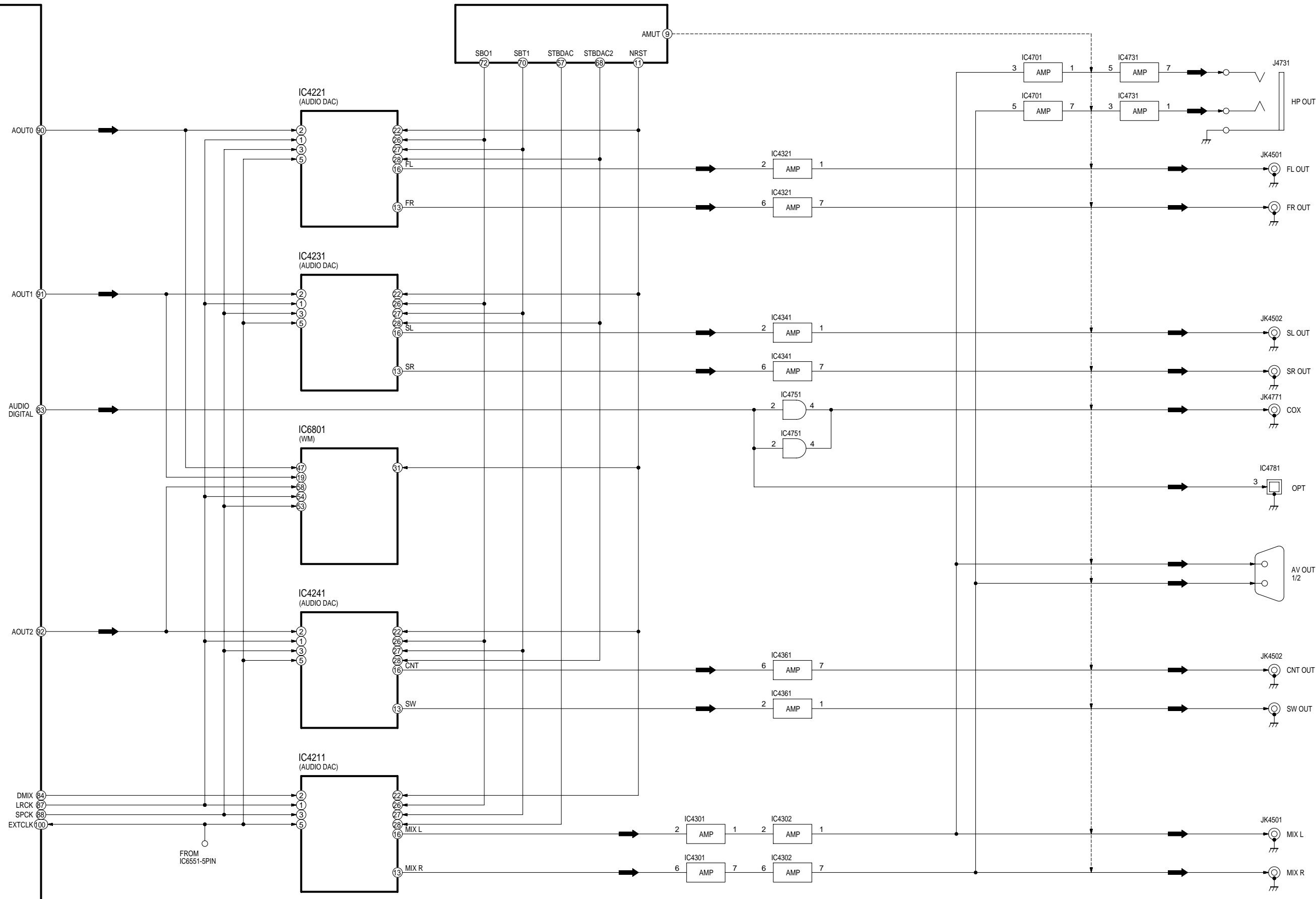
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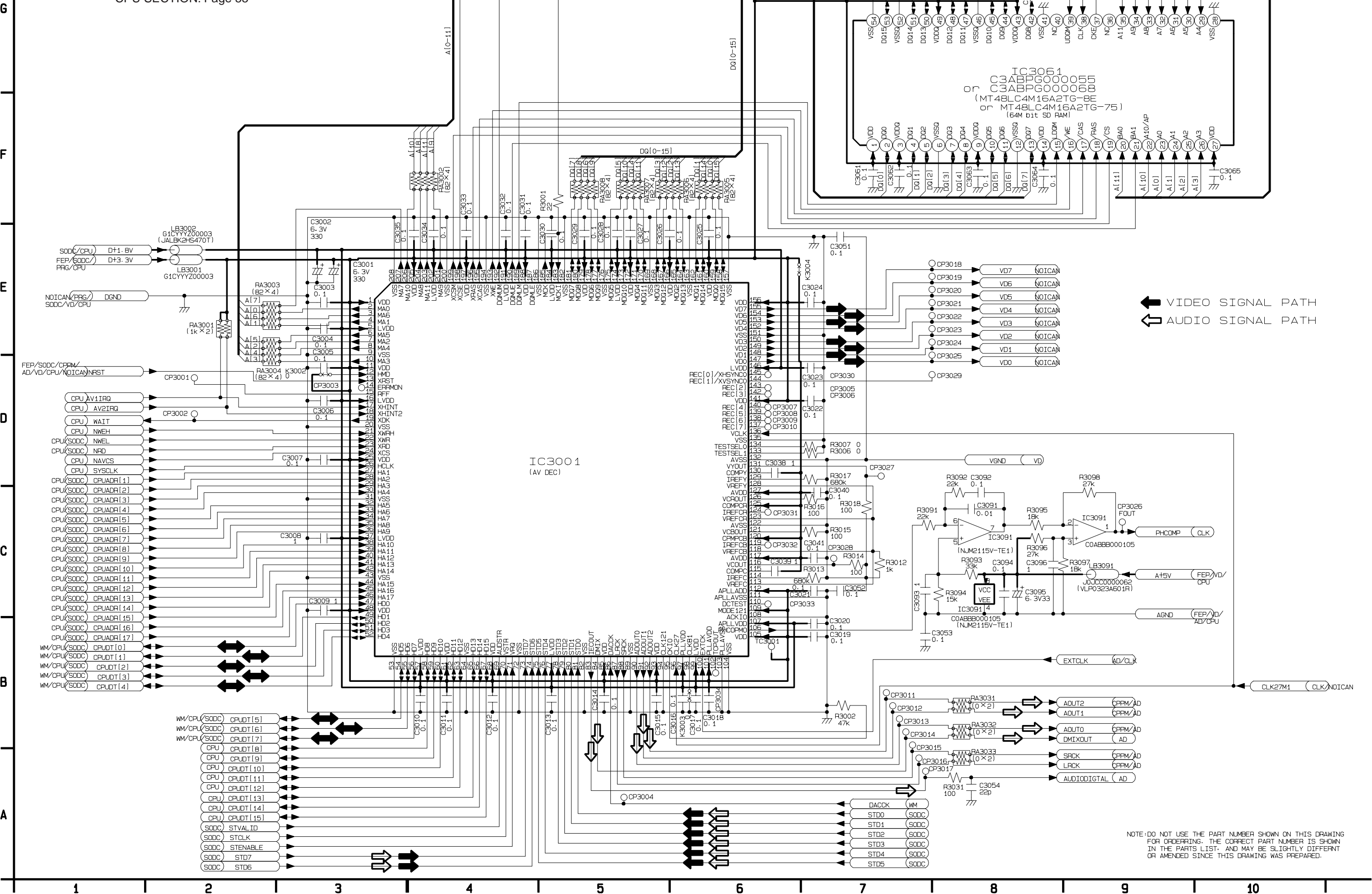


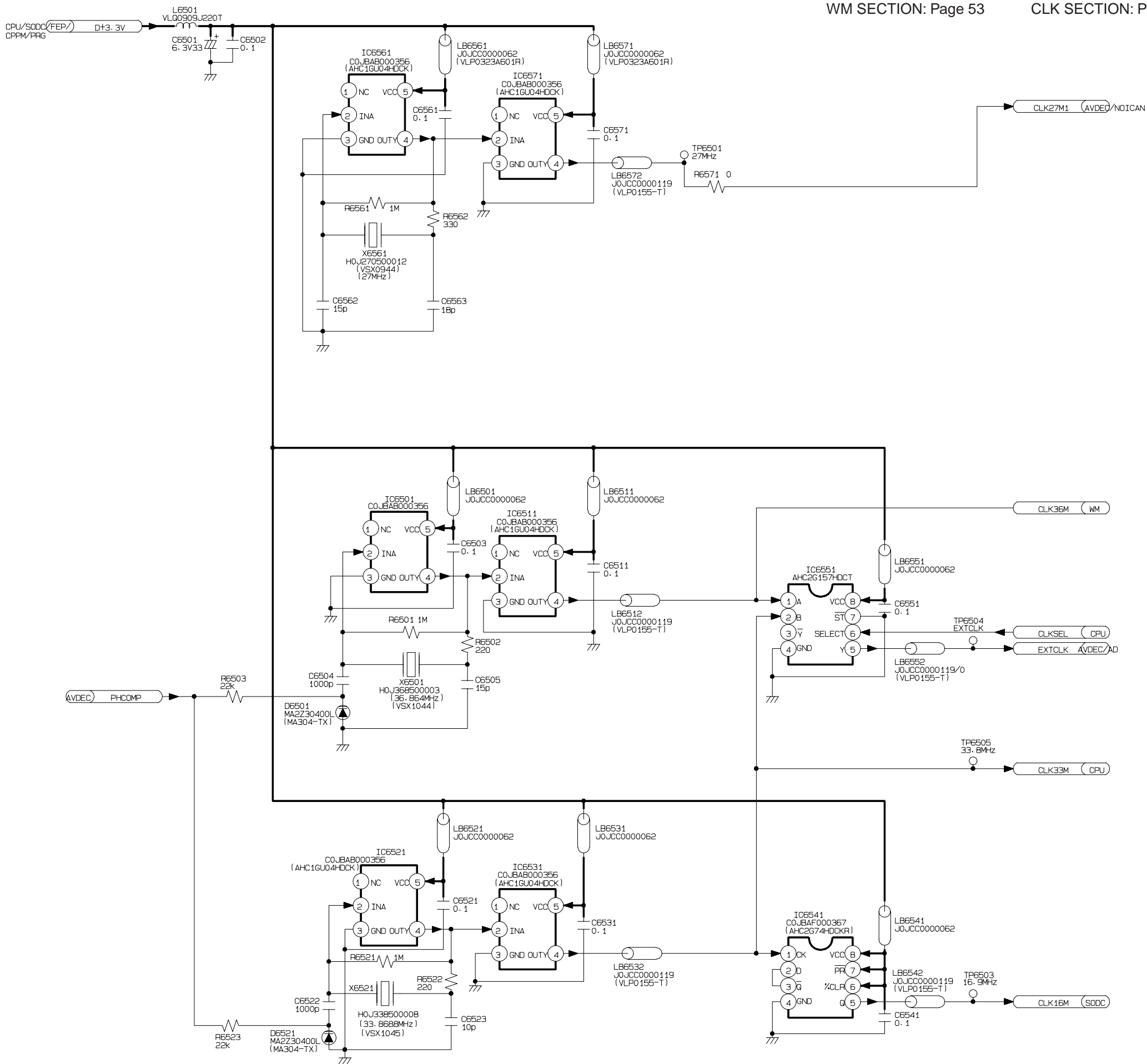
IC3001
(AV DECODER)

← MAIN SIGNAL

IC6201
(MAIN CPU)

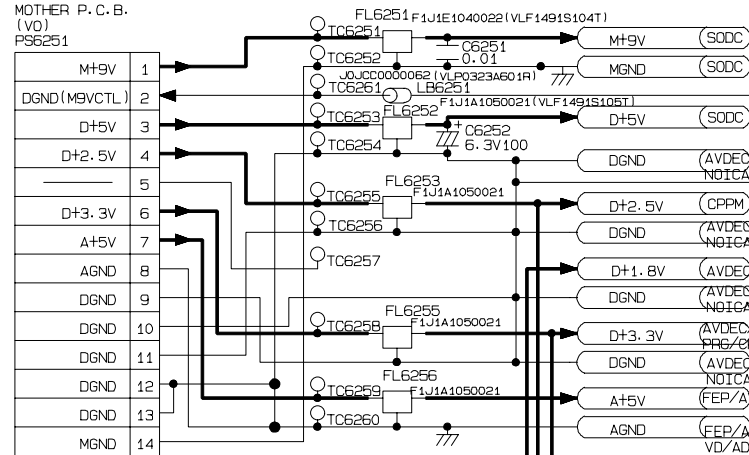






NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

TO PP1102
MOTHER P.C.B.
(V0)
PS6251



F

E

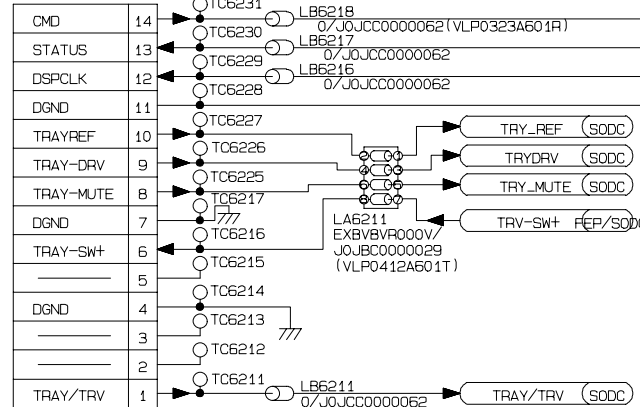
D

C

B

A

TO PF6001
MOTHER P.C.B.
(CP)
PS6202



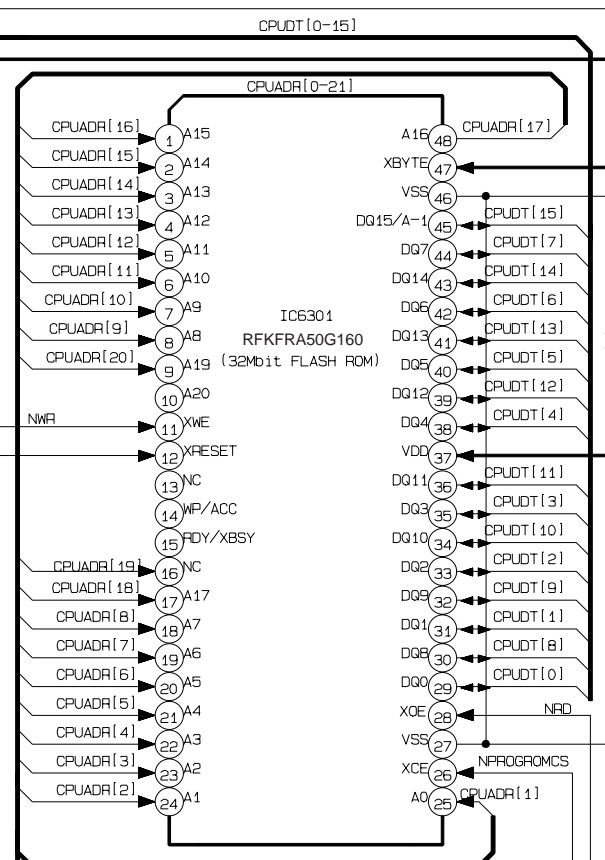
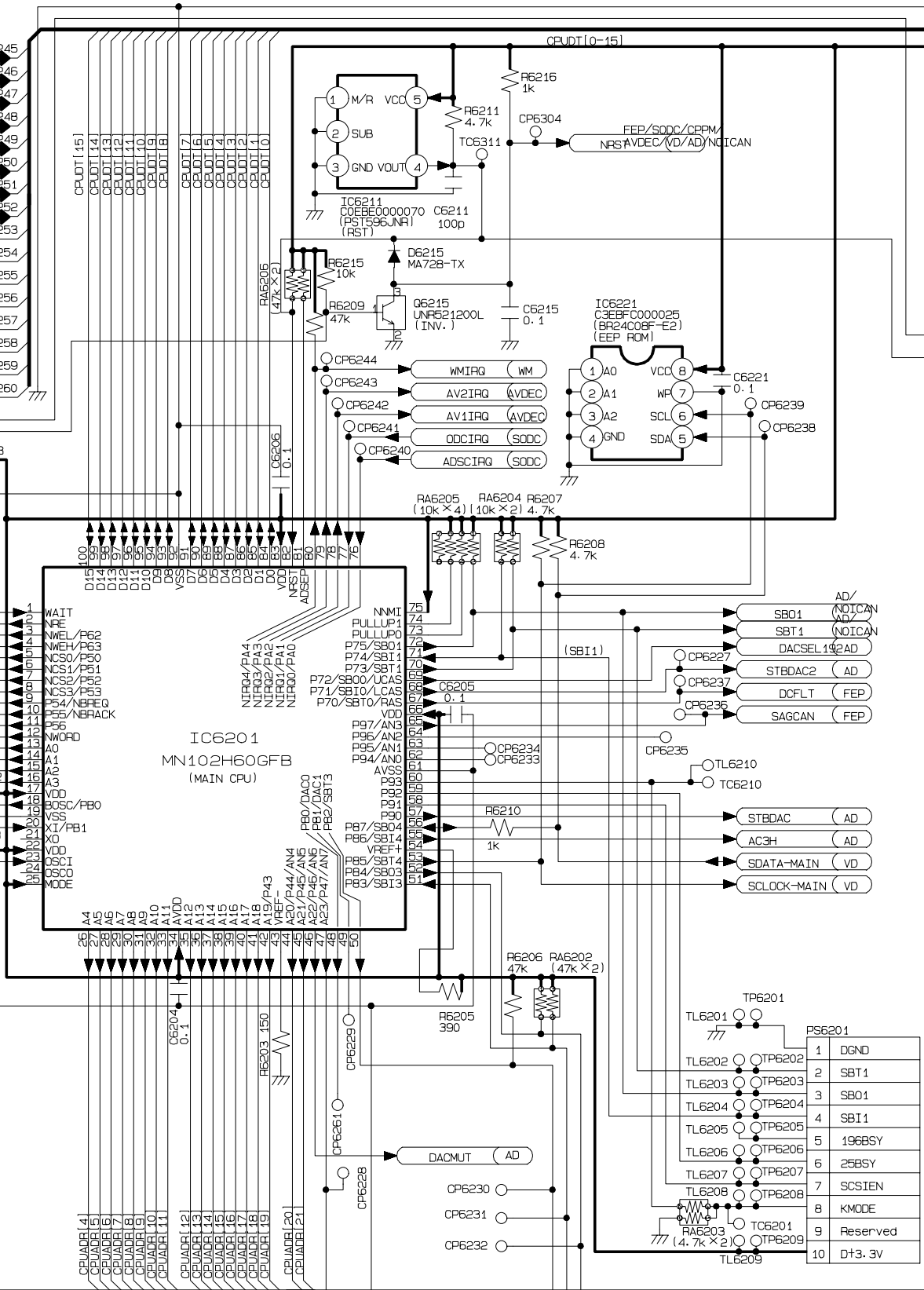
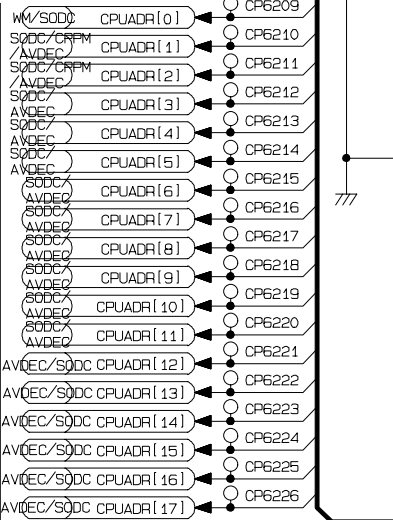
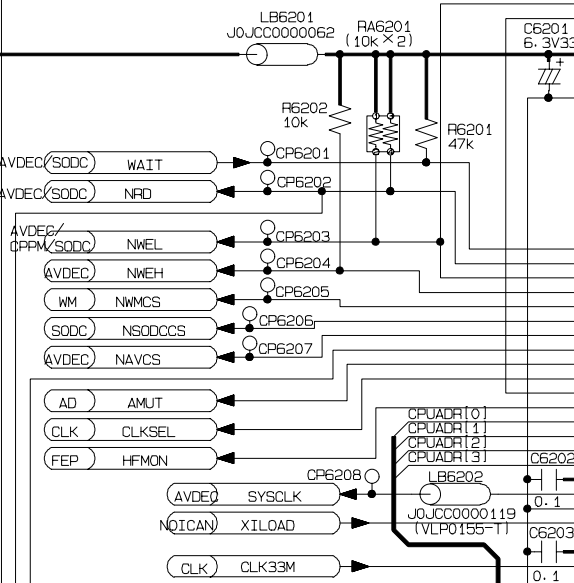
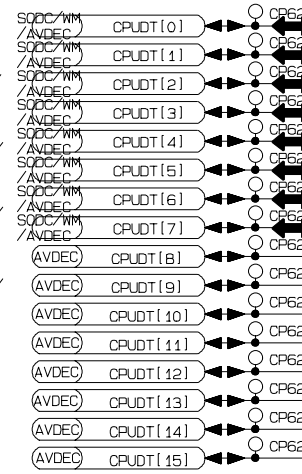
1 2 3 4 5 6 7 8 9 10

FEP SECTION: Page 47
NOICAM SECTION: Page 50
WM SECTION: Page 53

SODC SECTION: Page 48
VD SECTION: Page 51
CLK SECTION: Page 54

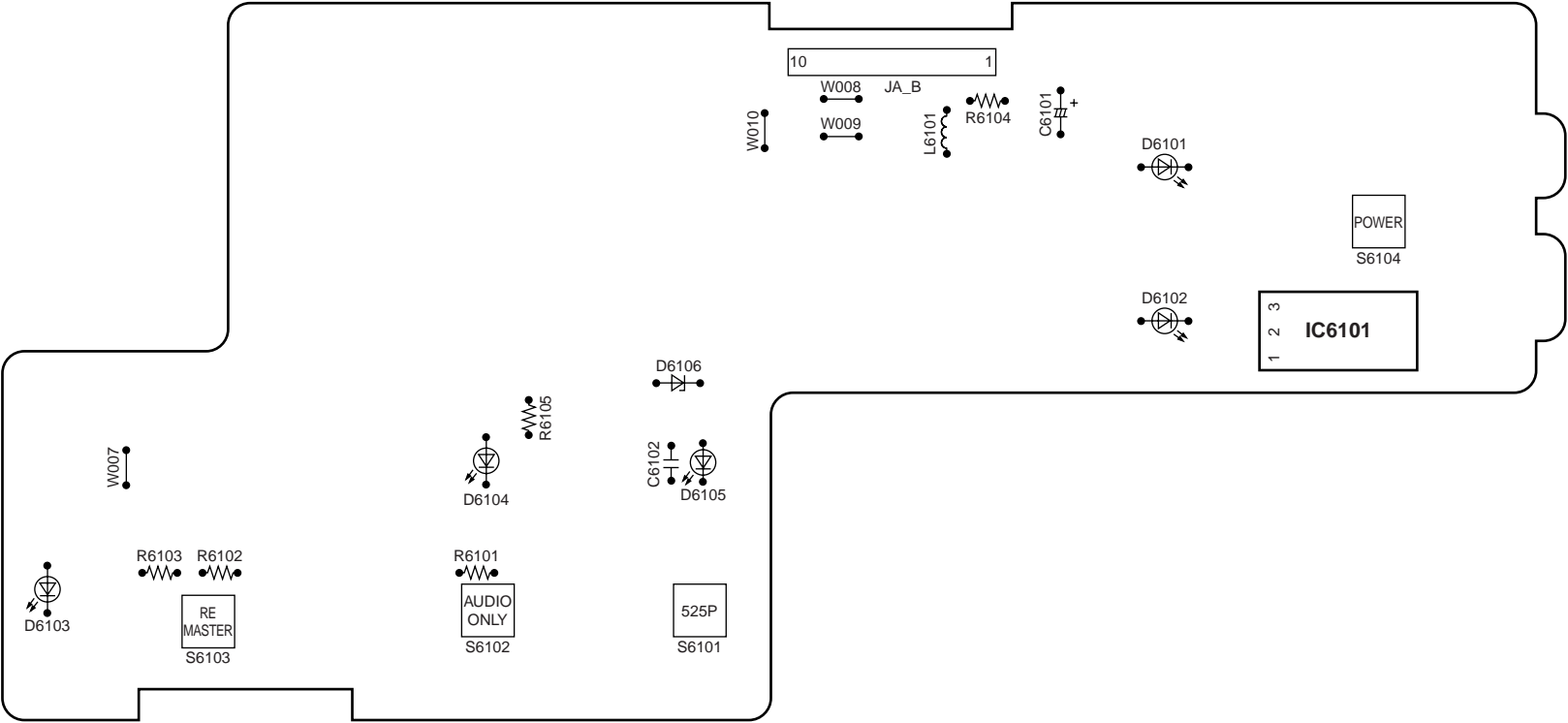
AVDEC SECTION: Page 49
AD SECTION: Page 52
CPU SECTION: Page 55

MAIN SIGNAL PATH

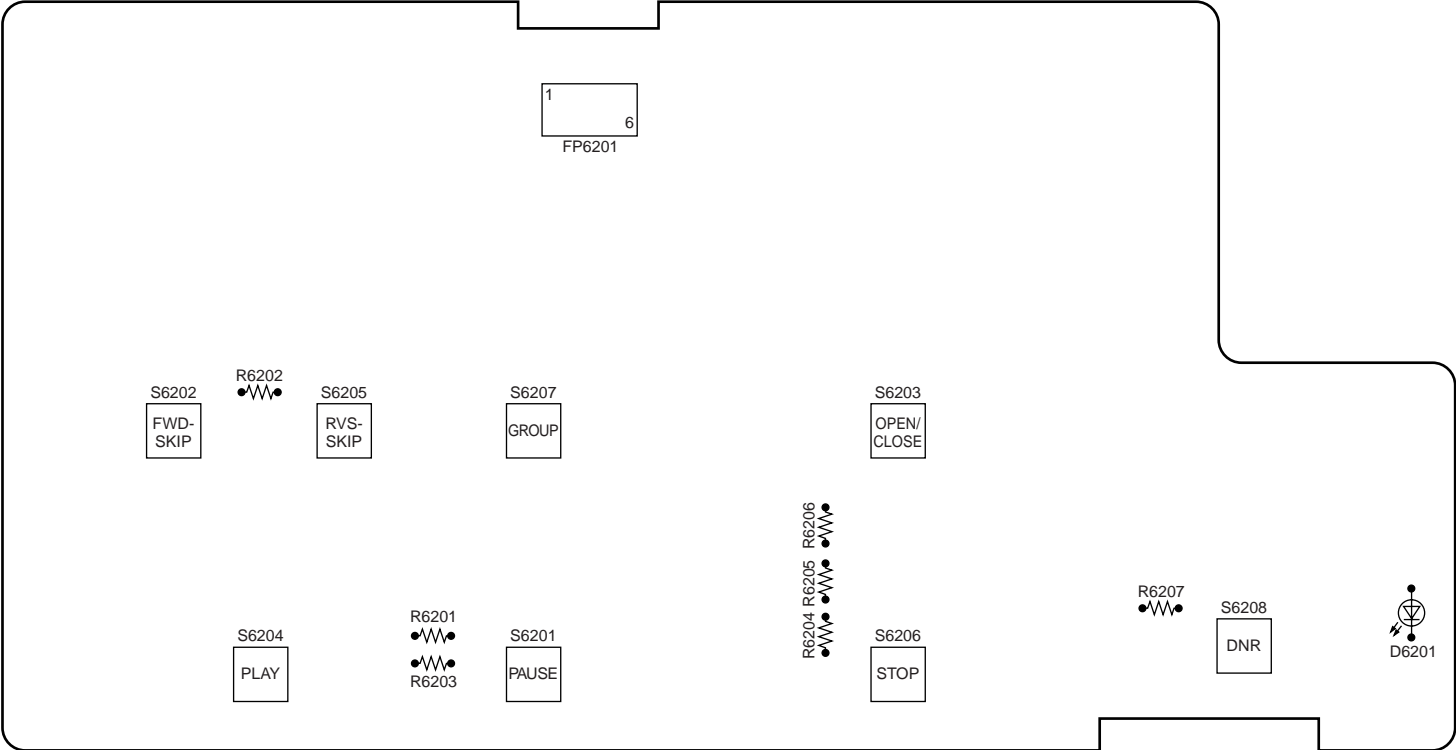


NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

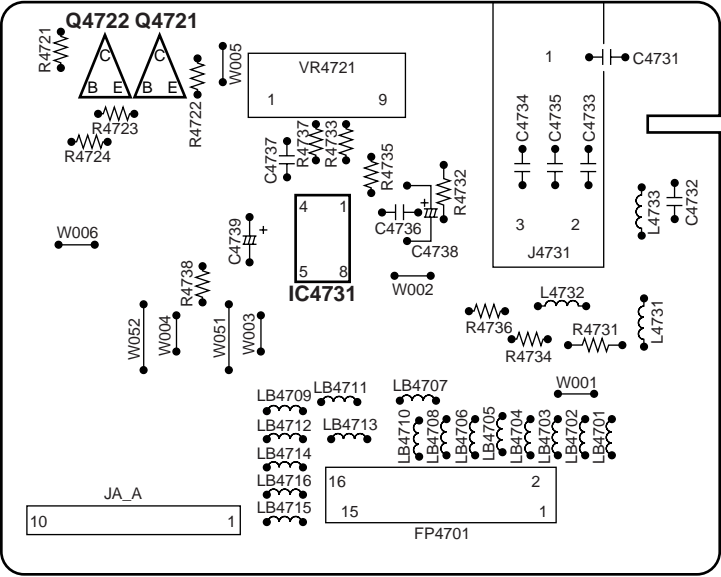
FRONT2 P.C.B.



FRONT1 P.C.B.



FRONT3 P.C.B.



G

F

E

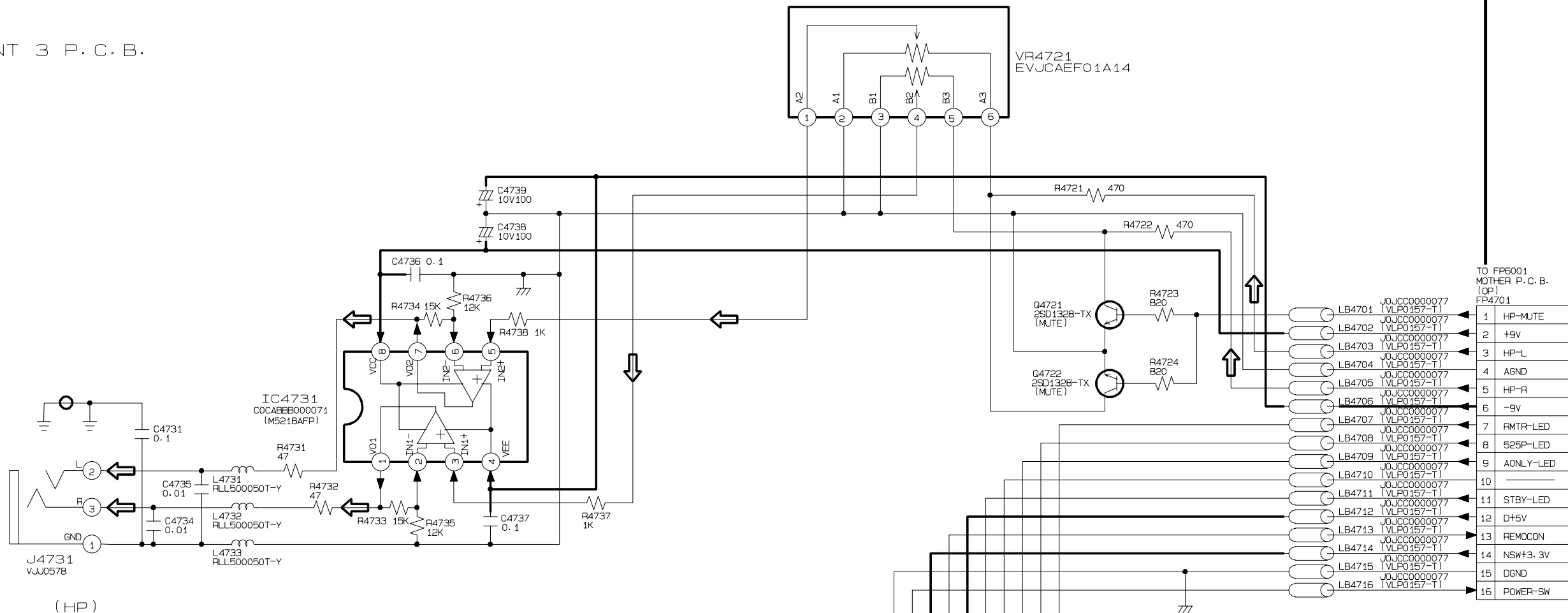
D

C

B

A

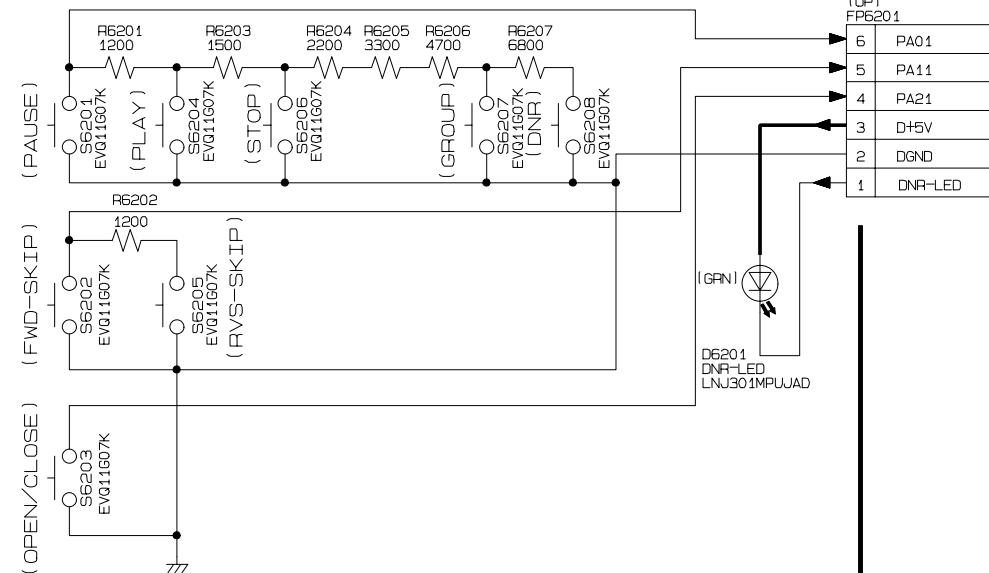
FRONT 3 P. C. B.



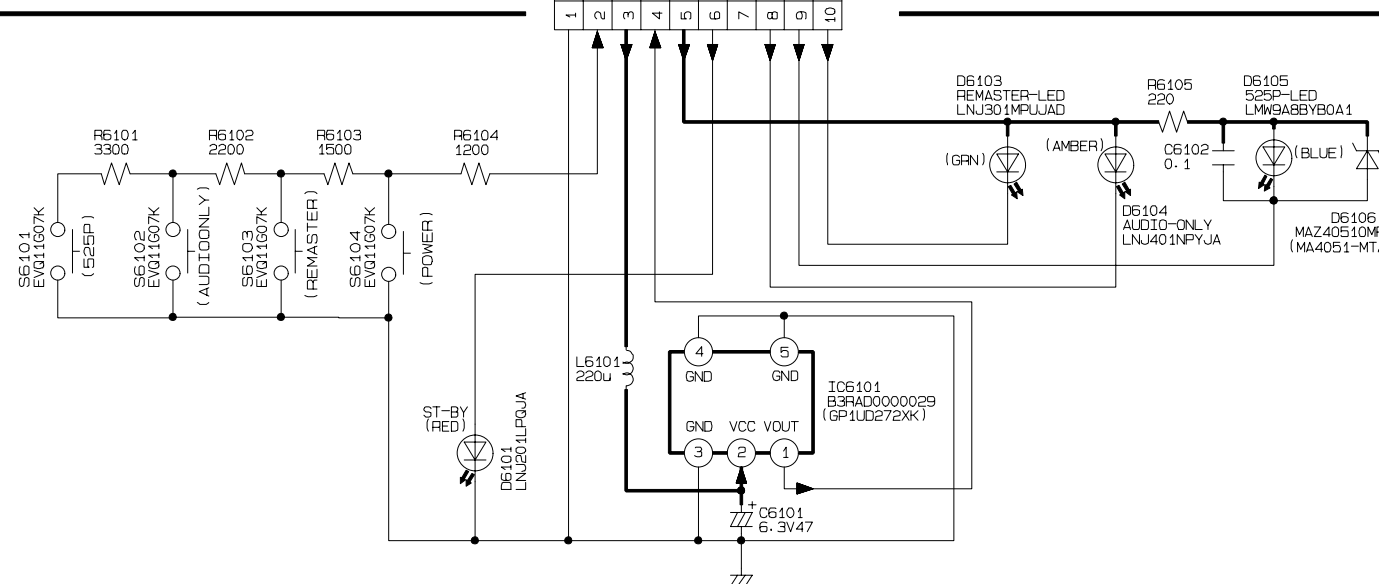
AUDIO SIGNAL PATH

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

FRONT 1 P. C. B.



FRONT 2 P. C. B.



F

E

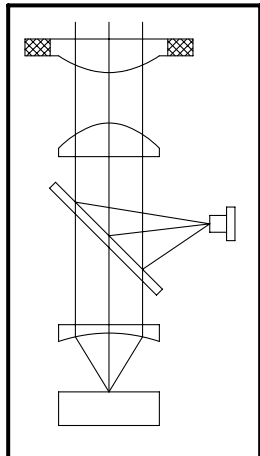
D

C

B

A

OPTICAL PICK UP UNIT



TERMINAL P.C.B.

FP5001	
1	GND
2	P IN(CD)
3	T2(CD)
4	FE2(CD)
5	V REF2.2(CD)
6	T1(CD)
7	LD(+)(CD)
8	GND
9	FE1
10	VCC 5V
11	TB(DVD)
12	TC(DVD)
13	TD(DVD)
14	TA(DVD)
15	V REF2.2(DVD)
16	P IN(DVD)
17	GAIN H/L
18	F2(DVD)
19	F1(DVD)
20	RFN
21	RFP
22	GND
23	GND
24	LD(+)(DVD)
25	GND
26	3.3V HFM
27	T(-)
28	F(-)
29	F(+)
30	T(+)

FP5002	
31	GND
32	LD(+)(DVD)
33	GND
34	3.3V HFM
35	T(-)
36	F(-)
37	F(+)
38	T(+)

FP5201	
1	T(+)
2	F(+)
3	F(-)
4	T(-)
5	3.3V HFM
6	GND
7	LD(+)(DVD)
8	GND
9	GND
10	RFP
11	RFN
12	F1(DVD)
13	F2(DVD)
14	GAIN H/L
15	P IN(DVD)
16	V REF 2.2V(DVD)
17	TA(DVD)
18	TD(DVD)
19	TC(DVD)
20	TB(DVD)
21	VCC 5V
22	FE1
23	GND
24	LD(+)(CD)
25	T1(CD)
26	V REF 2.2V(CD)
27	FE2(CD)
28	T2(CD)
29	P IN(CD)
30	GND
31	IN SW1
32	TRV2
33	TRV1
34	SP2
35	SP1
36	FG3
37	FG2
38	FG1

MODULE P.C.B.

PS4201	
1	_____
2	_____
3	A MUT
4	Z FLAG
5	DAC SEL192
6	A DAC 5V
7	A DAC 5V
8	A DAC GND
9	MIX L
10	A DAC GND
11	MIX R
12	A DAC GND
13	FL
14	A DAC GND
15	FR
16	A DAC GND
17	SL
18	A DAC GND
19	SR
20	A DAC GND
21	CNT
22	A DAC GND
23	SW
24	AC3H
25	D GND
26	AUDIO DIGITAL

PS3201	
1	V GND
2	PRC/R
3	V GND
4	PB/CB/B
5	V GND
6	Y/G
7	V GND
8	C
9	V GND
10	Y

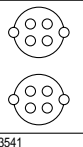
PS6251	
1	M +9V
2	D GND(M 9V CTL)
3	D +5V
4	D +2.5V
5	_____
6	D +3.3V
7	A +5V
8	A GND
9	D GND
10	D GND
11	D GND
12	D GND
13	D GND
14	M GND

PS6202	
14	CMD
13	STATUS
12	DSP CLK
11	D GND
10	TRAY REF
9	TRAY DRV
8	TRAY MUTE
7	D GND
6	TRAY SW+
5	_____
4	D GND
3	_____
2	_____
1	TRAY/TRV

SCART P.C.B.

PS3801	
1	NSW +12V
2	NSW +5V
3	GND
4	V OUT
5	GND
6	Y OUT
7	GND
8	C OUT
9	GND
10	R OUT
11	GND
12	L OUT
13	GND
14	S CLOCK
15	S DATA
16	DVD H
17	R
18	G
19	B

PP3801	
1	NSW +12V
2	NSW +5V
3	GND
4	V OUT
5	GND
6	Y OUT
7	GND
8	C OUT
9	GND
10	R OUT
11	GND
12	L OUT
13	GND
14	S CLOCK
15	S DATA
16	DVD H
17	R
18	G
19	B

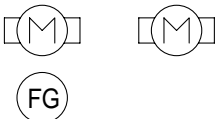


PP4201	
1	_____
2	_____
3	A MUT
4	Z FLAG
5	DAC SEL192
6	A DAC 5V
7	A DAC 5V
8	A DAC GND
9	MIX L
10	A DAC GND
11	MIX R
12	A DAC GND
13	FL
14	A DAC GND
15	FR
16	A DAC GND
17	SL
18	A DAC GND
19	SR
20	A DAC GND
21	CNT
22	A DAC GND
23	SW
24	AC3H
25	D GND
26	AUDIO DIGITAL

PP3201	
1	V GND
2	PRC/R
3	V GND
4	PB/CB/B
5	V GND
6	Y/G
7	V GND
8	C
9	V GND
10	Y

PP6001	
1	TRAY/TRV
2	_____
3	_____
4	D GND
5	_____
6	TRAY SW+
7	D GND
8	TRAY MUTE
9	TRAY DRV
10	TRAY REF
11	D GND
12	DSP CLK
13	STATUS
14	CMD

MECHANISM UNIT



TRAY OPEN SWITCH

PP6002	
1	TRAY SW(-)
2	D GND

PP1101	
1	NSW -10.5V
2	A GND
3	NSW +10.5V
4	A GND
5	A +5V
6	D GND(M 9V CTL)
7	D +2.5V
8	D GND
9	D +2.5V
10	D GND
11	D +5V
12	M GND
13	M +9V
14	POWER OFF L
15	NSW +5V
16	FL H(+)
17	FL H(-)
18	FL -30.8V

FR6002	
1	DNR LED
2	D GND
3	D +5V
4	PA21
5	PA11
6	PA01

POWER SUPPLY P.C.B.



PS1101	
1	NSW -10.5V
2	A GND
3	NSW +10.5V
4	A GND
5	A +5V
6	D GND(M 9V CTL)
7	D +2.5V
8	D GND
9	D +2.5V
10	D GND
11	D +5V
12	M GND
13	M +9V
14	POWER OFF L
15	NSW +5V
16	FL H(+)
17	FL H(-)
18	FL -30.8V

FRONT1 P.C.B.



FR6201	
1	DNR LED
2	D GND
3	D +5V
4	PA21
5	PA11
6	PA01

FRONT2 P.C.B.



1	D GND
2	POWER SW
3	NSW +3.3V
4	REMOTE CTL
5	D +5V
6	STBY LED
7	_____
8	A ONLY LED
9	S25P LED
10	RMTR LED

JA A

1	D GND
2	POWER SW
3	NSW +3.3V
4	REMOTE CTL
5	D +5V
6	STBY LED
7	_____
8	A ONLY LED
9	S25P LED
10	RMTR LED

FR4701	
1	HP MUTE
2	+5V
3	HP L
4	A GND
5	HP R
6	-5V
7	RMTR LED
8	S25P LED
9	A ONLY LED
10	_____
11	STBY LED
12	D +5V
13	REMOTE CTL
14	NSW +3.3V
15	D GND
16	POWER SW

FRONT3 P.C.B.



PP1102	
1	M +9V
2	D GND(M 9V CTL)
3	D +5V
4	D +2.5V
5	_____
6	D +3.3V
7	A +5V
8	A GND
9	D GND
10	D GND
11	D GND
12	D GND
13	D GND
14	M GND

MODULE P.C.B.(1/2)

F

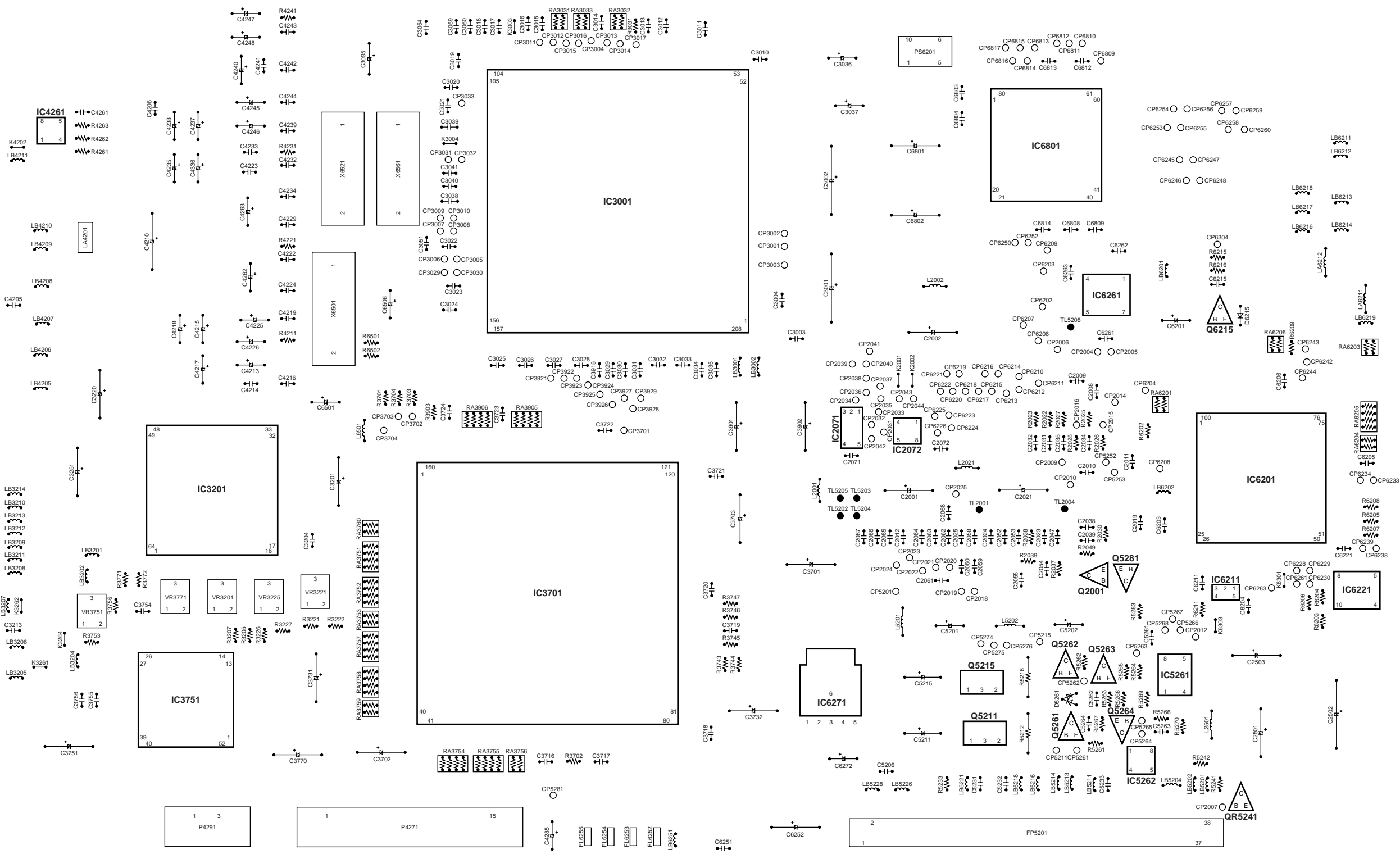
E

D

C

B

A



MOTHER P.C.B.					
Transistor		Transistor-resistors		IC4802	A-2
Q1131	C-3	QR3521	D-6	IC4901	B-3
Q1132	C-3	QR3522	D-6	IC6001	B-6
Q1141	C-3	QR3591	D-7	IC6002	B-6
Q1142	C-3	QR3592	D-7	IC6004	A-4
Q3501	E-6	QR4201	E-5	Connectors	
Q3511	E-6	QR4202	D-5	DL6001	A-5
Q3551	E-7	QR4381	E-3	FP6001	B-8
Q3561	E-7	QR4382	E-3	FP6002	A-3
Q3571	E-7	QR4591	E-2	JK3541	F-4
Q4381	E-3	QR4593	E-2	JK3581	F-6
Q4501	F-4	QR4594	D-2	JK3582	F-7
Q4502	E-5	QR4595	E-1	JK4501	F-4
Q4511	F-4	QR6001	A-7	JK4502	F-3
Q4512	E-5	QR6002	A-7	JK4801	F-1
Q4521	F-3	QR6003	B-6	P4801	E-4
Q4531	F-3	Integrated Circuits		P4802	E-1
Q4541	F-3	IC1121	C-1	P4803	A-1
Q4551	F-3	IC3531	E-6	P4804	A-3
Q4561	E-3	IC3581	E-7	PP1101	E-7
Q4571	F-3	IC4301	D-6	PP1102	C-3
Q4810	E-5	IC4302	E-5	PP3201	E-2
Q4811	E-5	IC4321	D-5	PP3801	F-6
Q4901	B-4	IC4341	E-4	PP4201	E-1
Q4911	B-4	IC4361	E-4	PP6001	B-1
Q4912	B-4	IC4701	D-6	PP6002	A-4
Q4913	B-4	IC4751	E-3		
Q4921	C-5	IC4752	E-3		
Q4931	B-5	IC4753	E-2		
Q6001	A-7	IC4781	F-2		
Q6071	D-8	IC4801	A-3		

ADDRESS INFORMATION

G

F

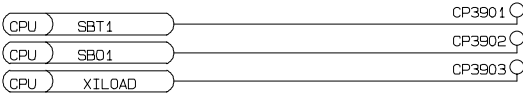
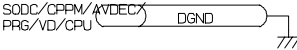
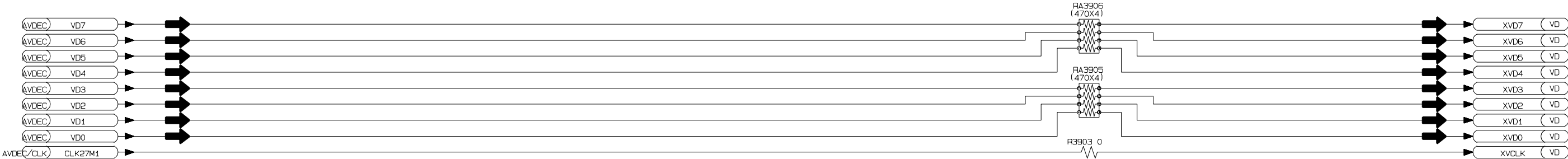
E

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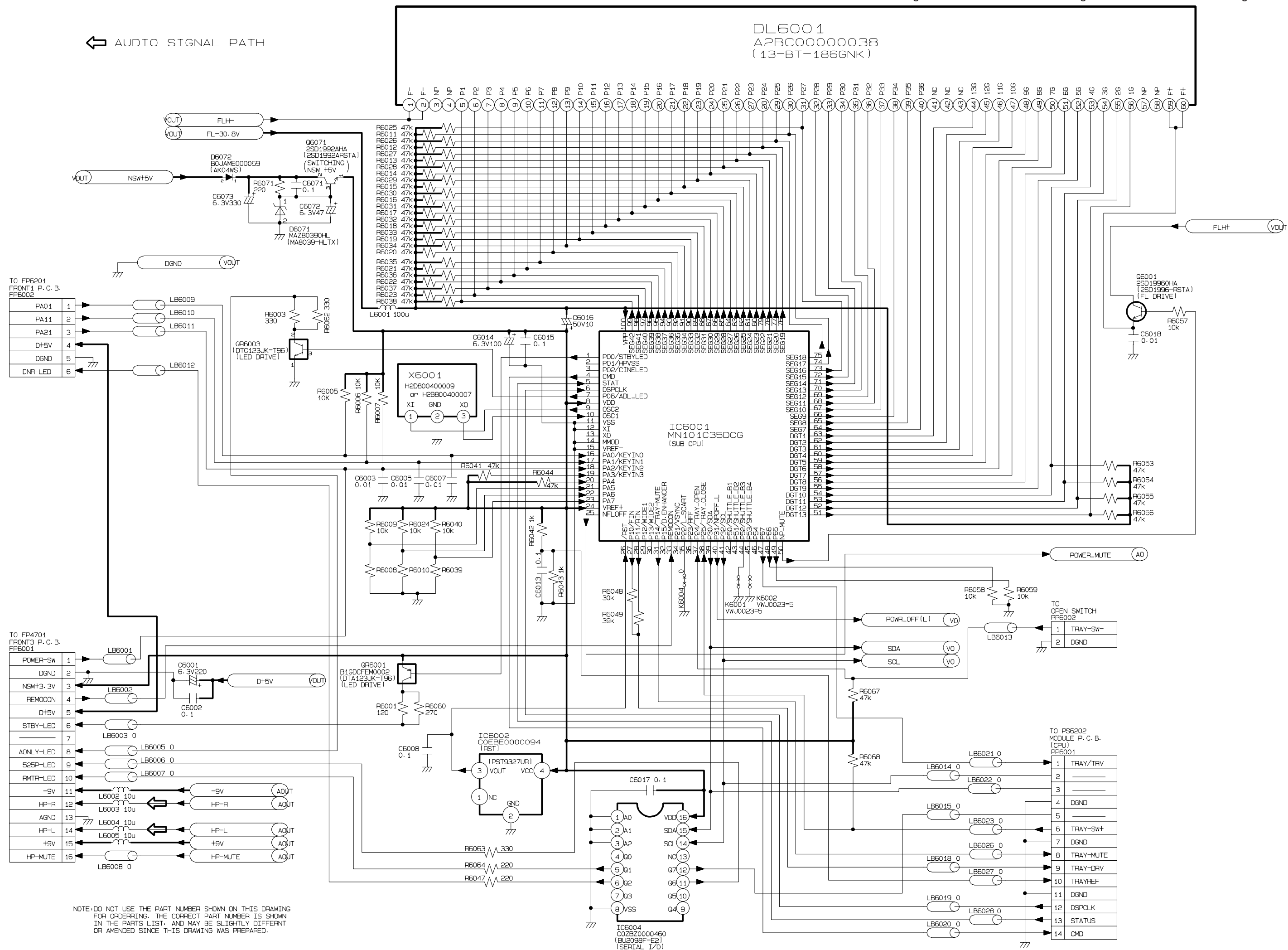
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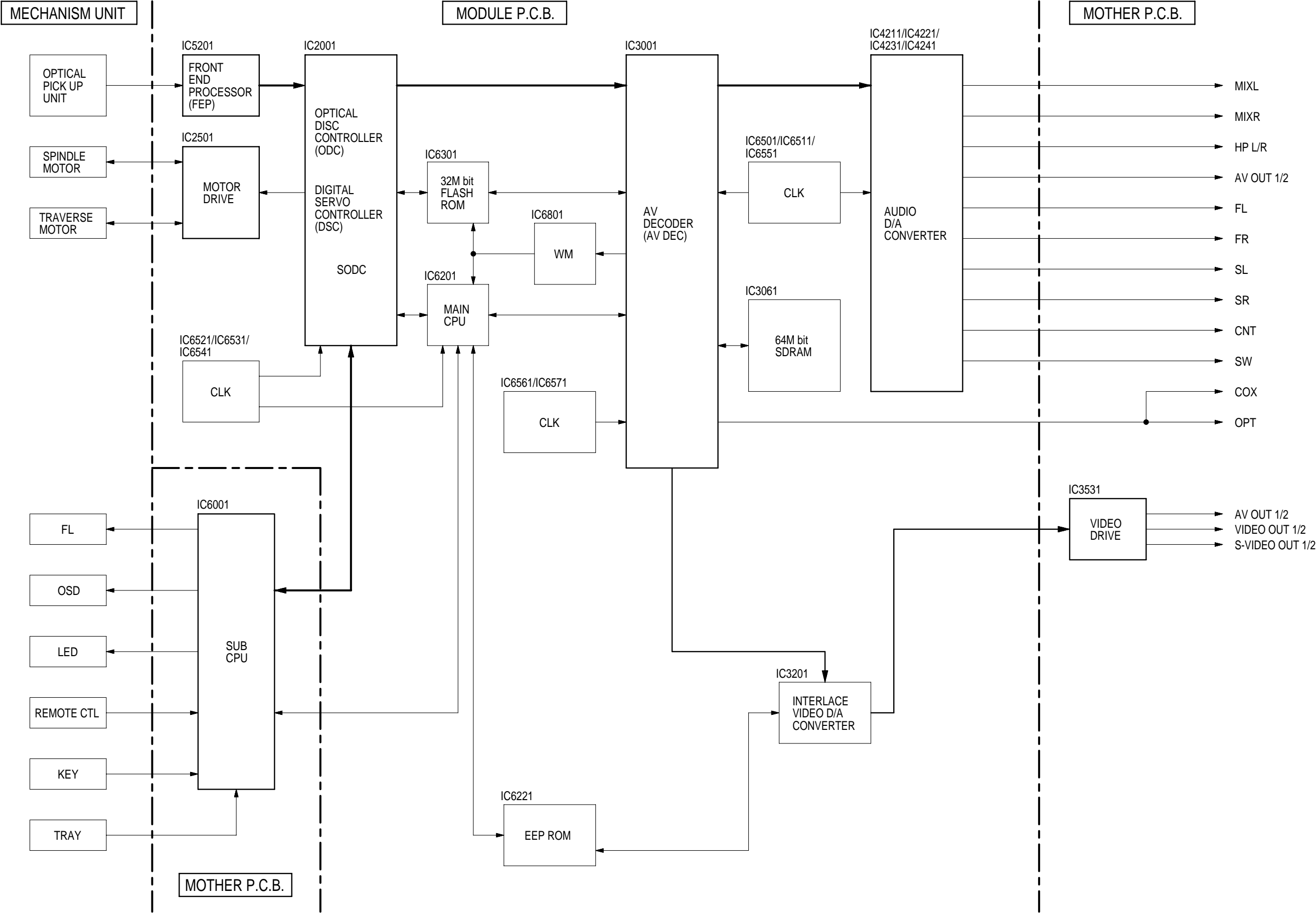


← VIDEO SIGNAL PATH

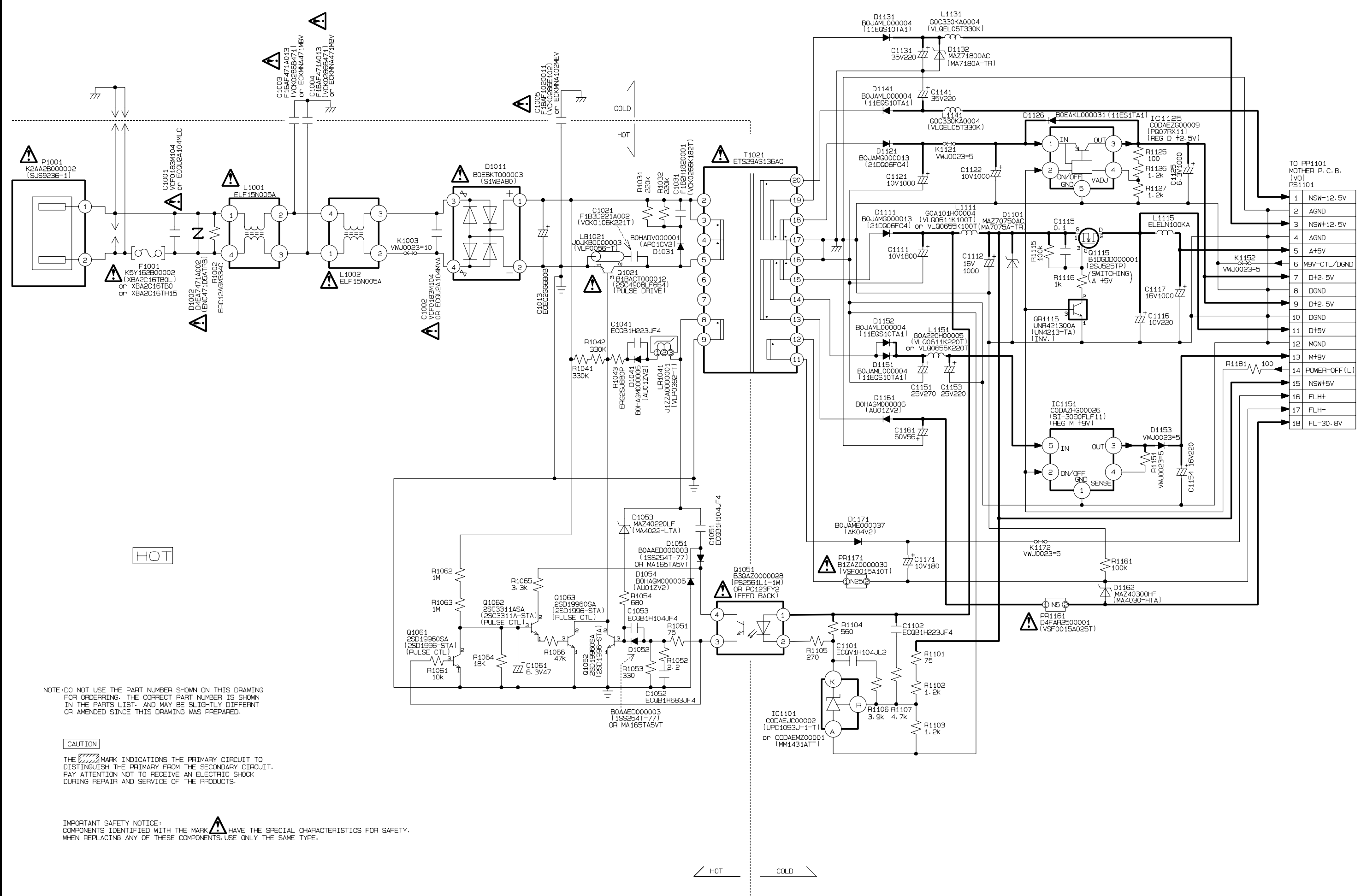
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← AUDIO SIGNAL PATH






G
F
E
D
C
B
A



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CAUTION

THE  MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT. PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:  COMPONENTS IDENTIFIED WITH THE MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

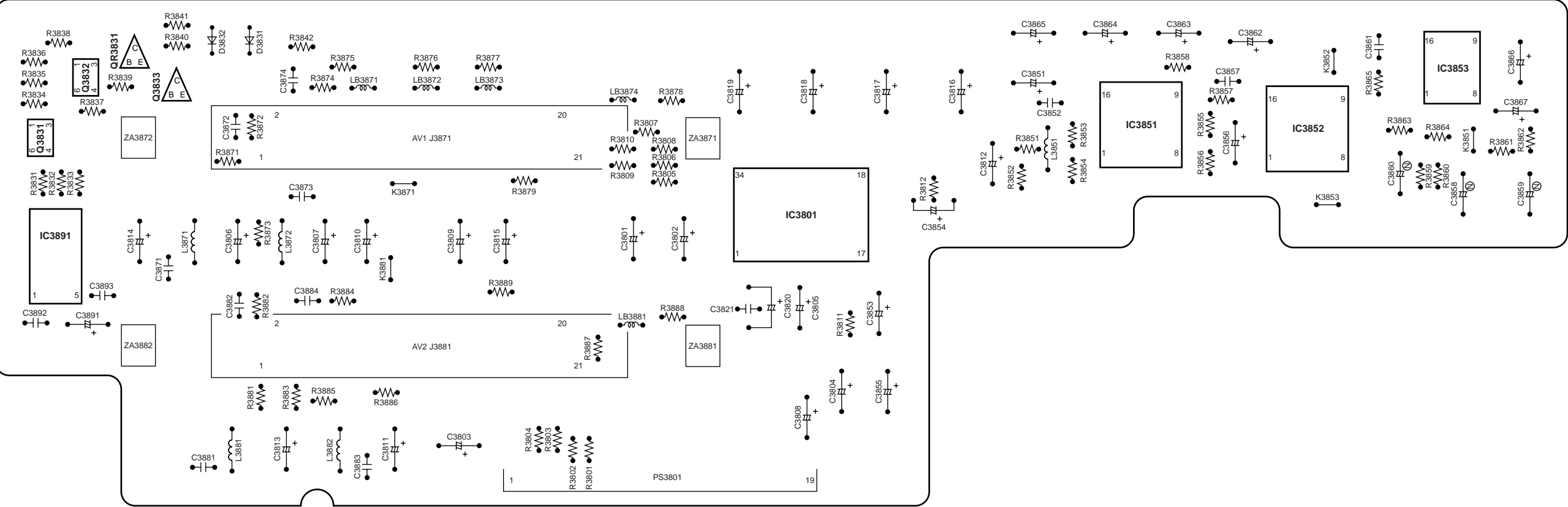
TO PP1101
MOTHER P.C.B.
(V0)
PS1101

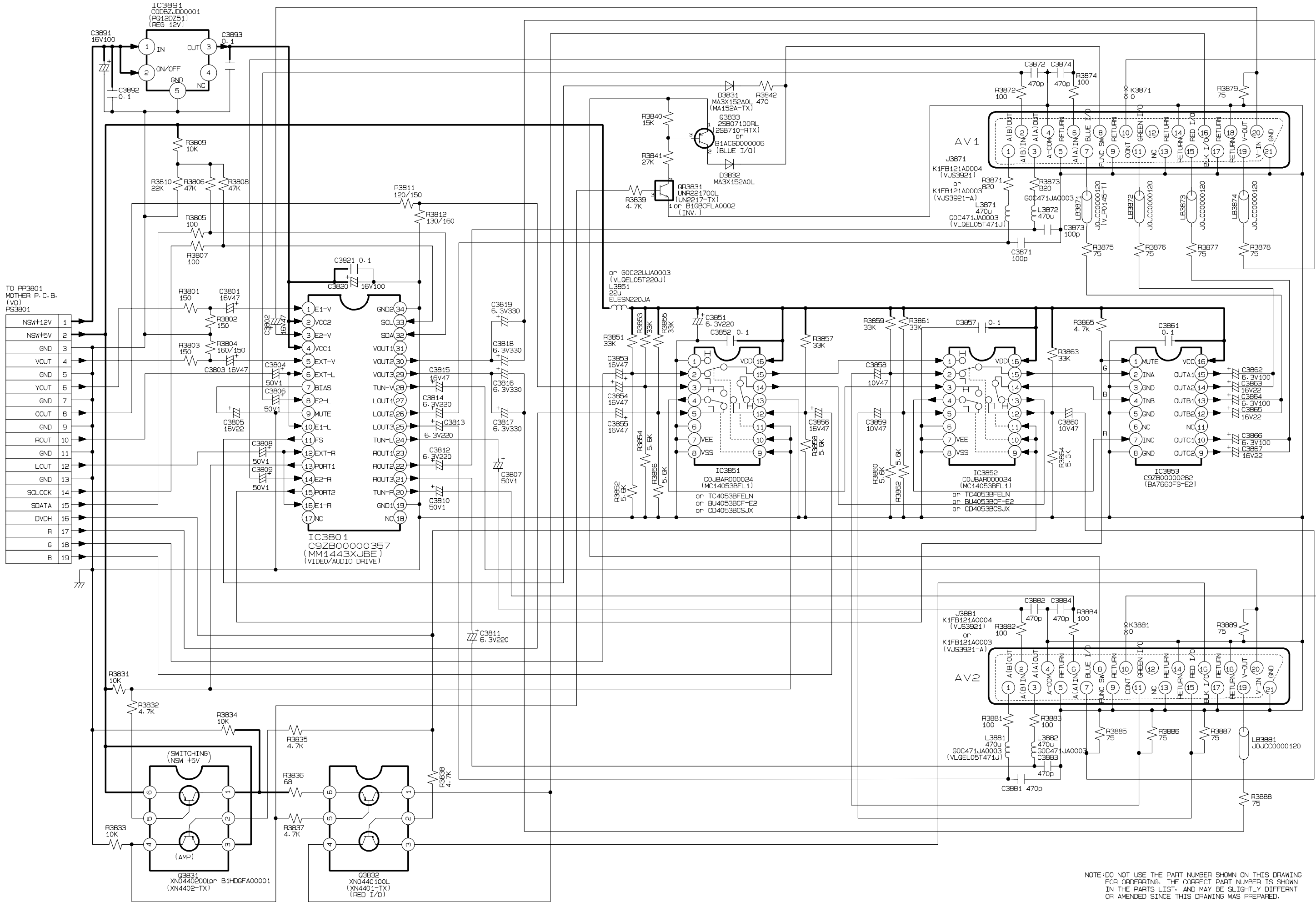
1	NSW-12.5V
2	AGND
3	NSW+12.5V
4	AGND
5	A+5V
6	M9V-CTL/DGND
7	D+2.5V
8	DGND
9	D+2.5V
10	DGND
11	D+5V
12	MGND
13	M+9V
14	POWER-OFF (L)
15	NSW+5V
16	FLH+
17	FLH-
18	FL-30.8V

SCART P.C.B.					
Transistors		Integrated circuits		Connectors	
Q3831	C-1	IC3801	B-5	PS3801	A-4
Q3832	C-1	IC3851	C-7	ZA3871	C-5
Q3833	C-2	IC3852	C-8	ZA3872	C-1
Transistor - resistors		IC3853	C-9	ZA3881	B-5
QR3831	C-1	IC3891	B-1	ZA3882	B-1

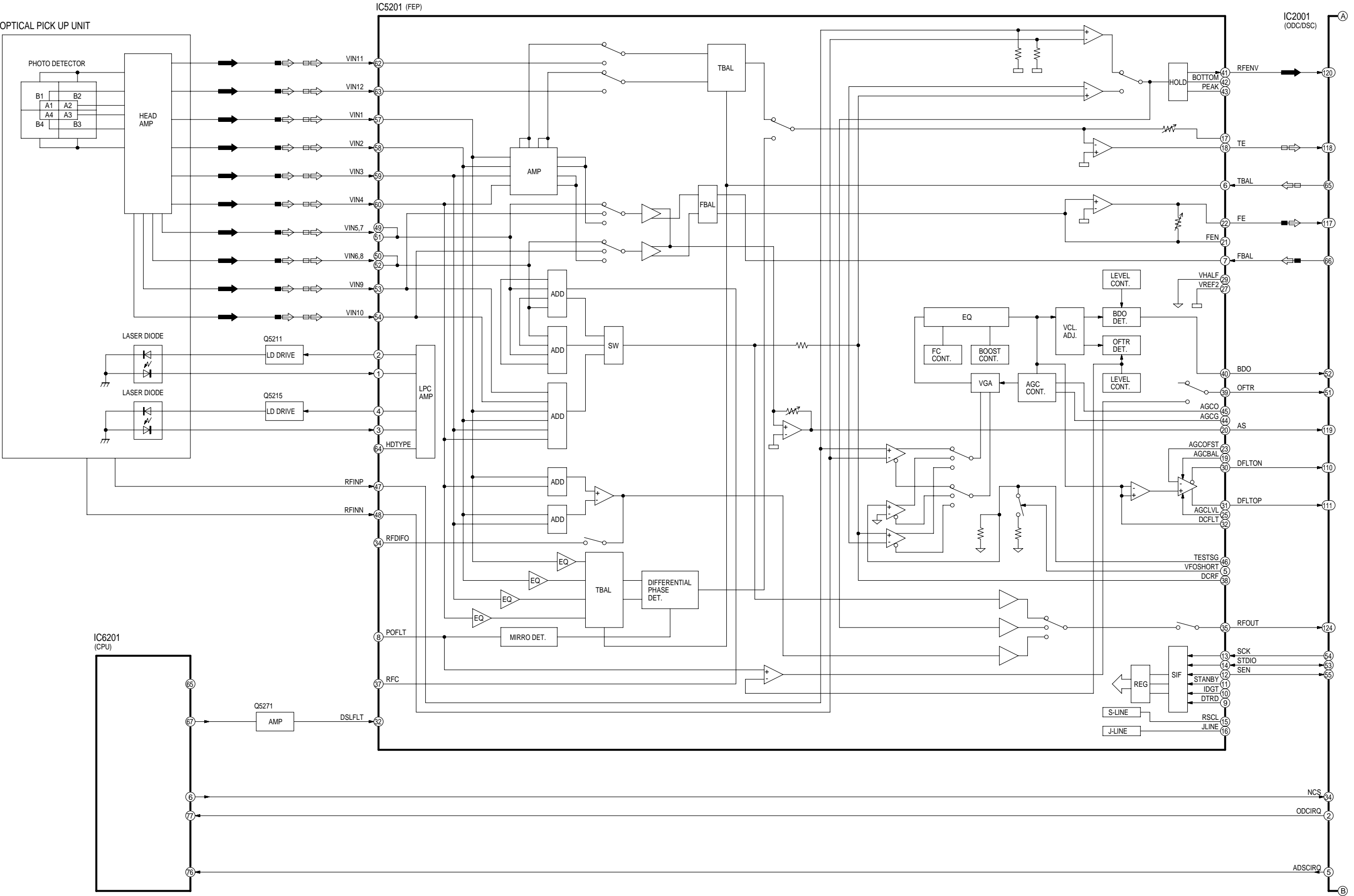
ADDRESS INFORMATION

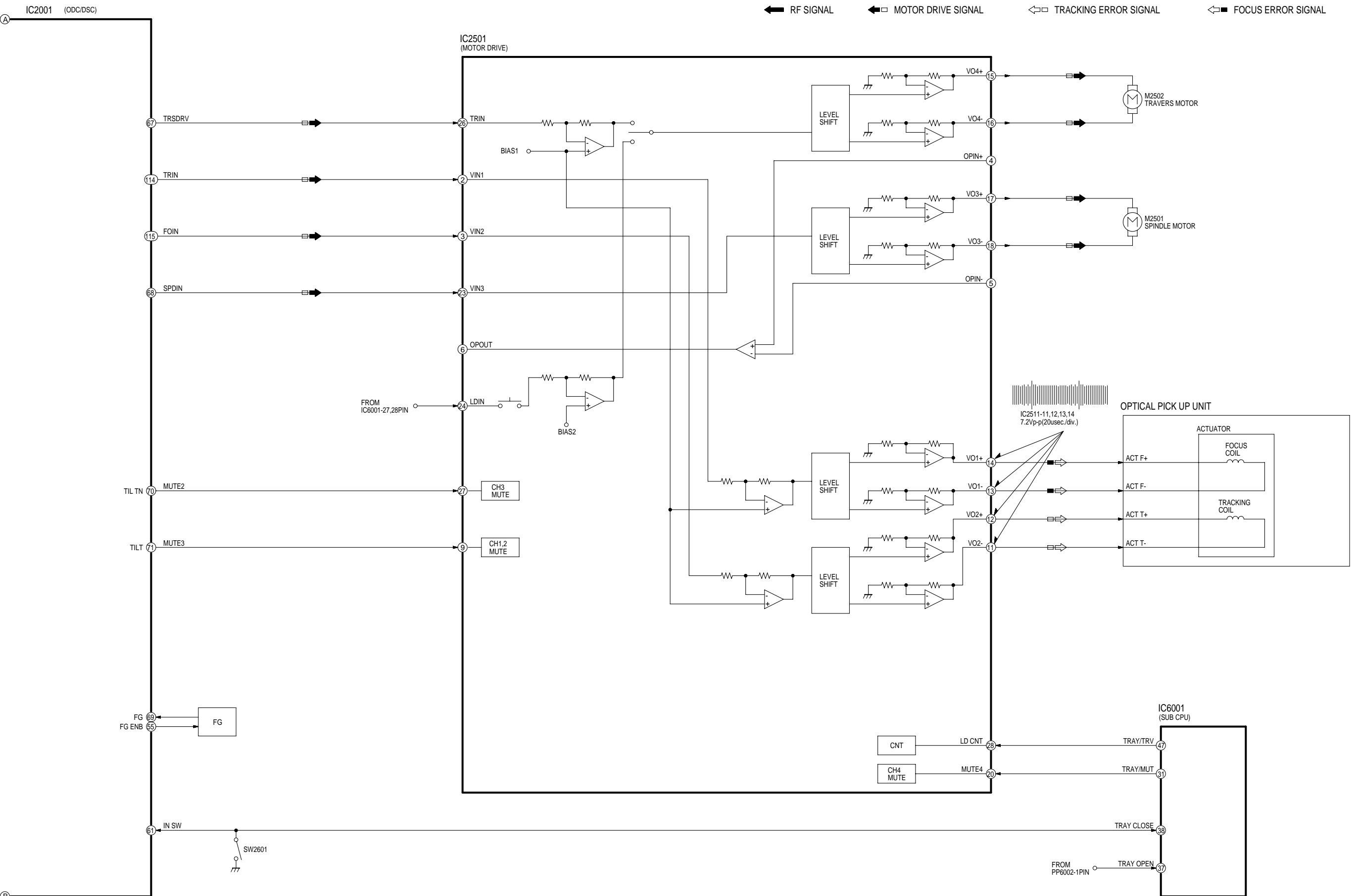
SCART P.C.B.



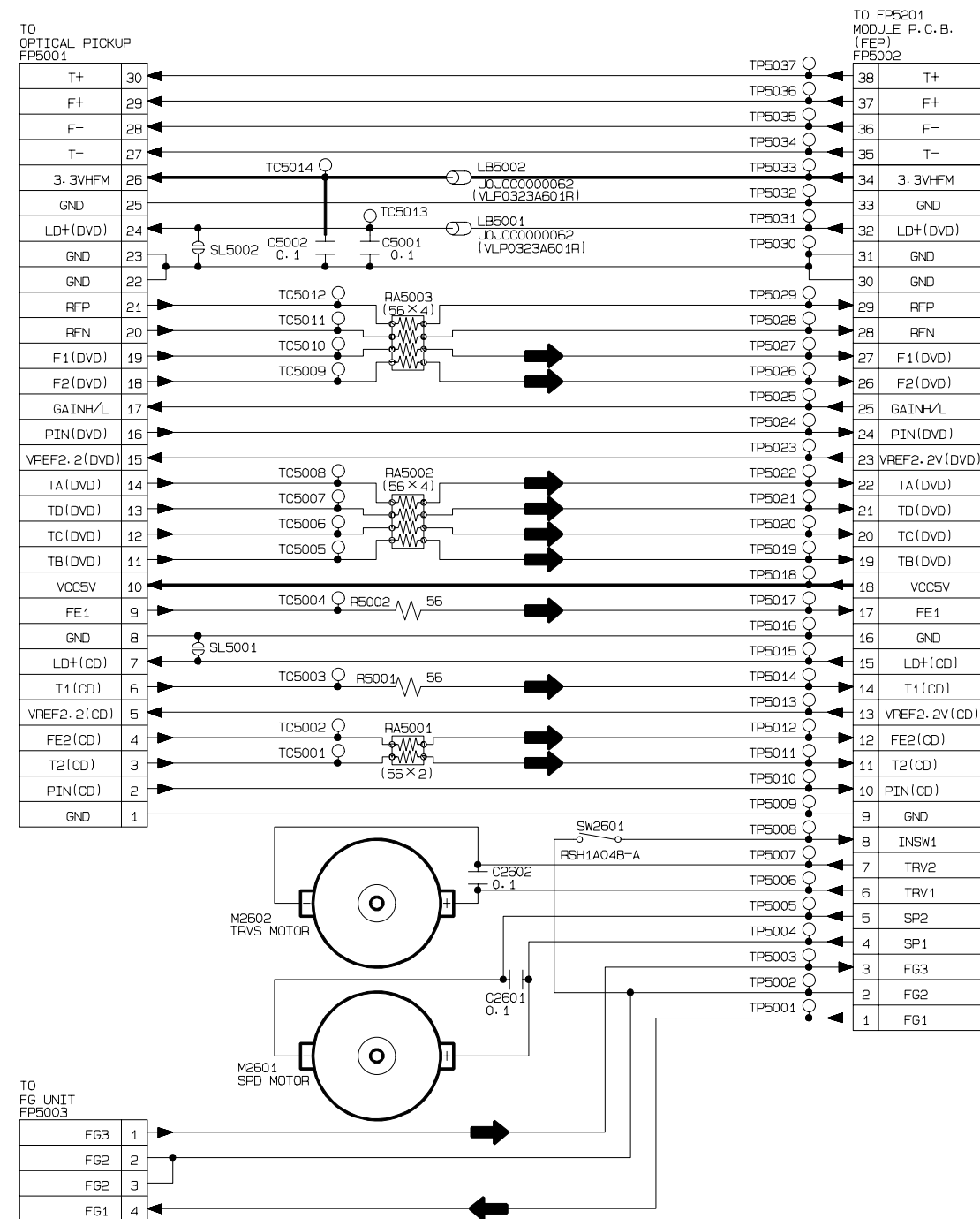


OPTICAL PICK UP UNIT

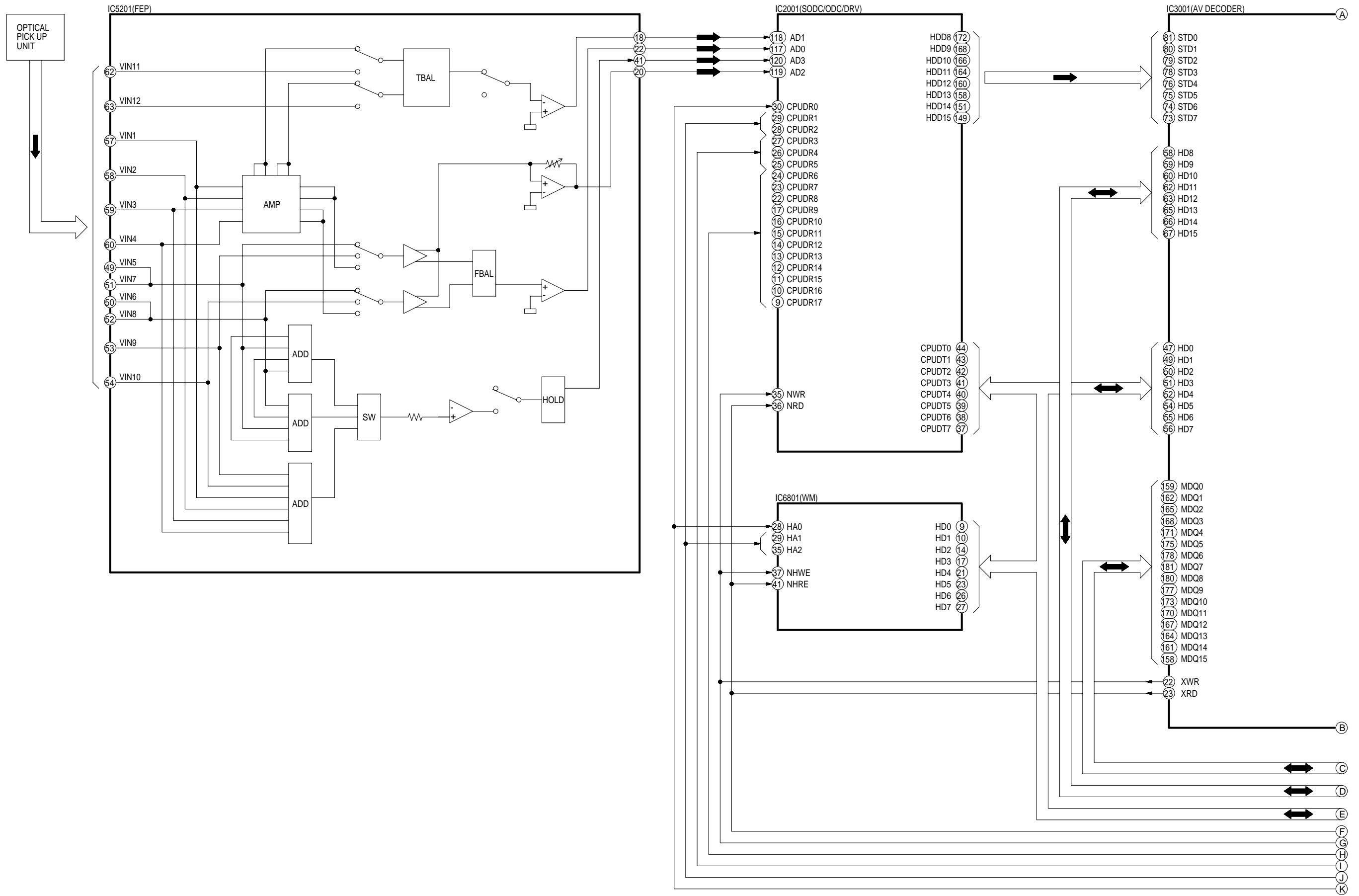


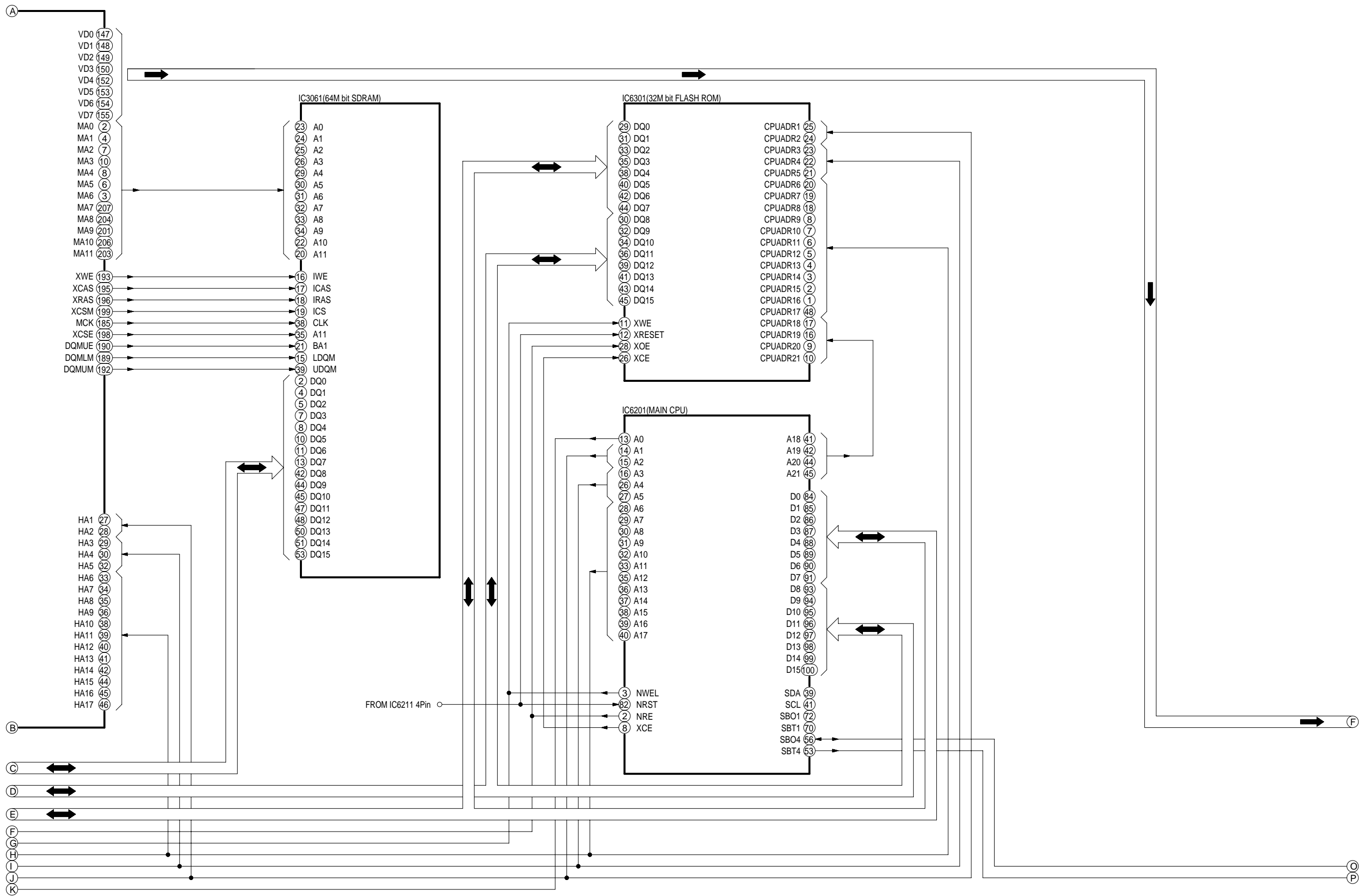


← MAIN SIGNAL PATH

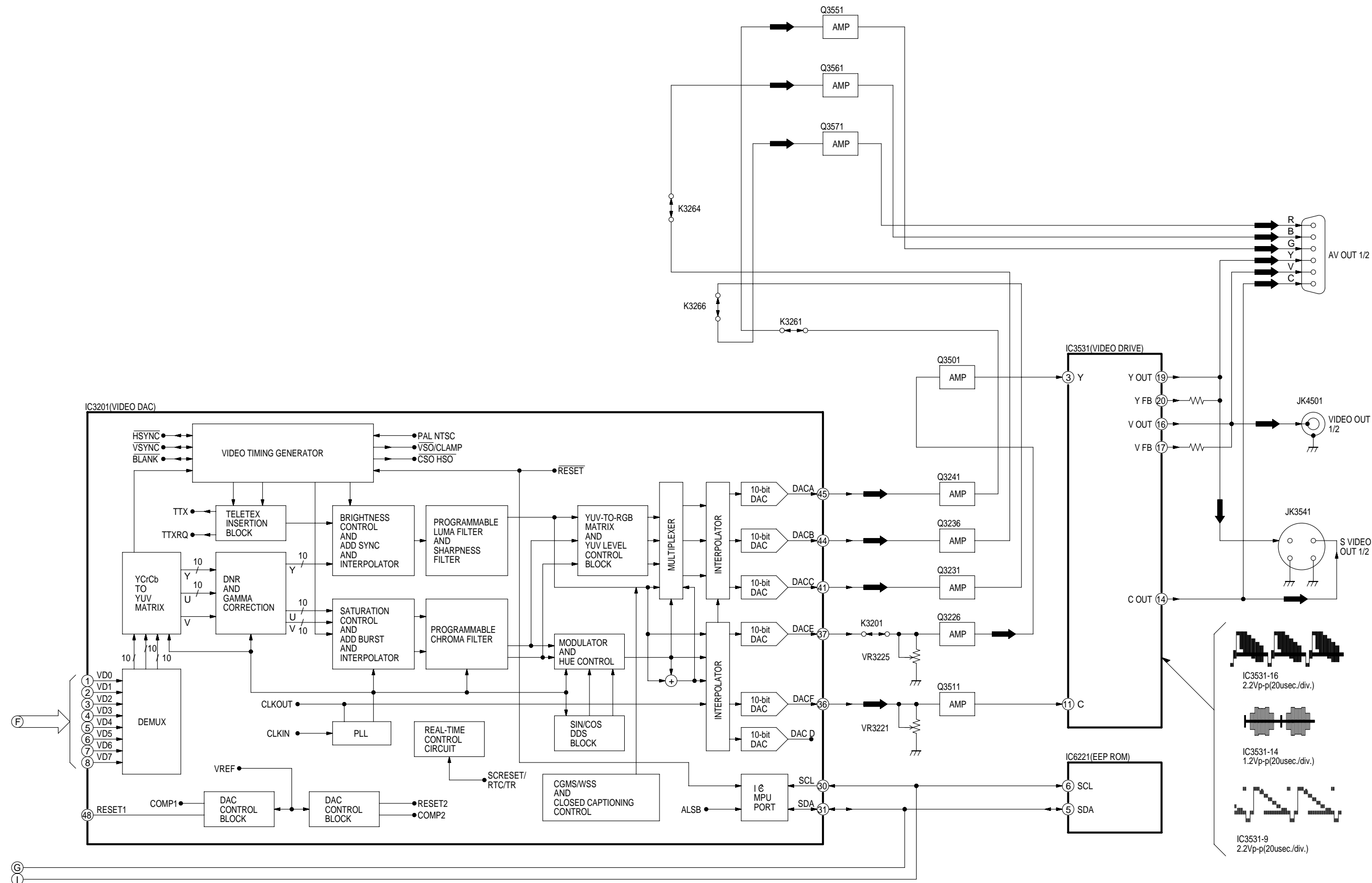


NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.



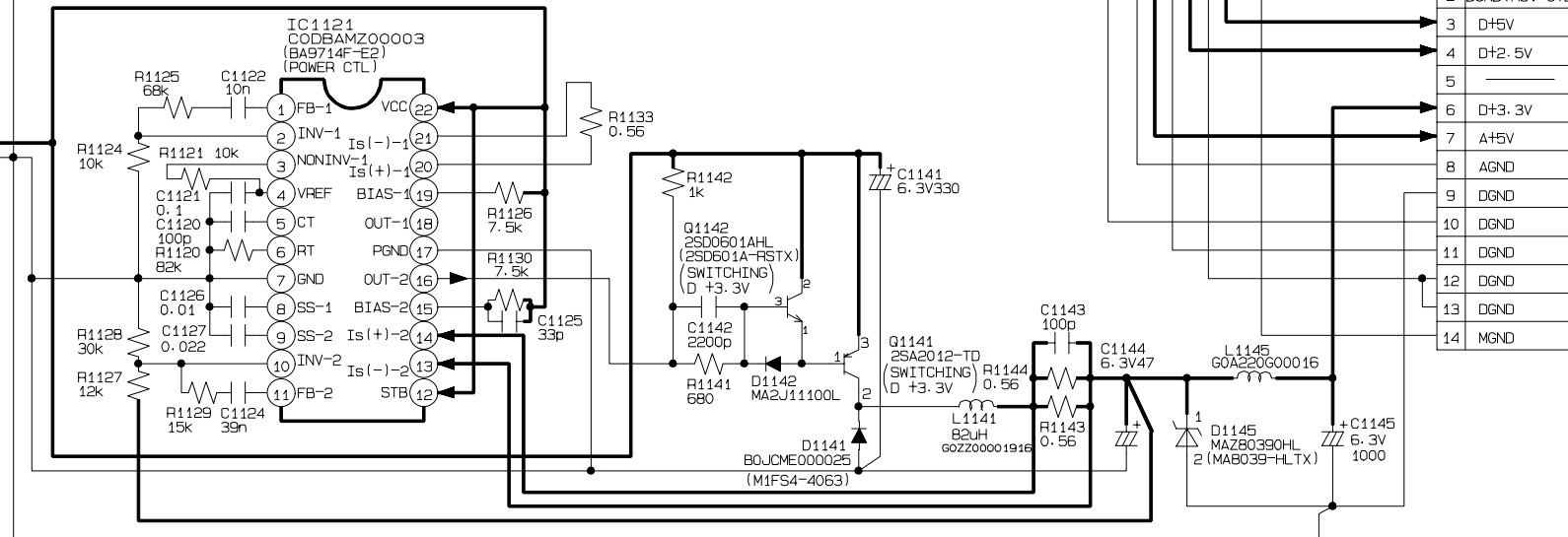


← MAIN SIGNAL



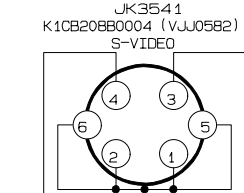
TO PS1101
POWER P. C. B.
PP1101

NSW-11V	1	NSW-11V (AO)
AGND	2	AGND (AO)
NSW+12V	3	NSW+12V (AO)
AGND	4	AGND (AO)
A+5V	5	ADAC5V (AO)
DGND (M9V-CTL)	6	DGND (AO/OP)
D+2.5	7	
DGND	8	
D+2.5V	9	
DGND	10	
D+5V	11	D+5V (AO/OP)
MGND	12	
M+9V	13	
POWER-OFF (L)	14	POWER_OFF (L) (OP)
NSW+5V	15	NSW+5V (OP)
FLH+	16	FLH+ (OP)
FLH-	17	FLH- (OP)
FL-30.8V	18	FL-30.8V (OP)



TO PS6251
MODULE P. C. B.
(CPU)
PP1102

1	M+9V
2	DGND (M9V-CTL)
3	D+5V
4	D+2.5V
5	
6	D+3.3V
7	A+5V
8	AGND
9	DGND
10	DGND
11	DGND
12	DGND
13	DGND
14	MGND

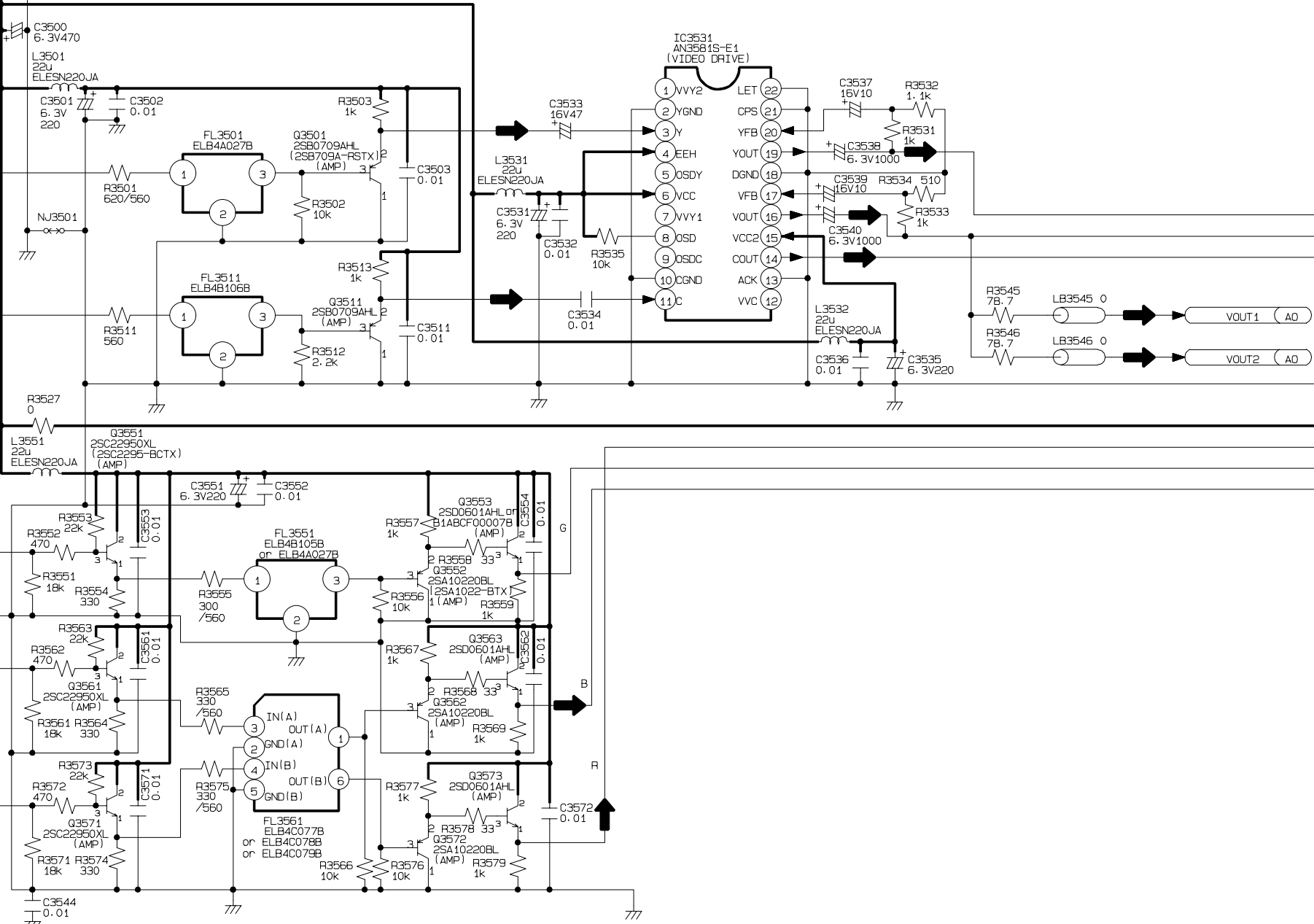


TO PS3801
SCART P. C. B.
PP3801

1	NSW+12V
2	NSW+5V
3	GND
4	VOUT
5	GND
6	VOUT
7	GND
8	COUT
9	GND
10	ROUT
11	GND
12	LOUT
13	GND
14	SCLOCK
15	SDATA
16	DVDH
17	R
18	G
19	B

TO PS3201
MODULE P. C. B.
(VD)
PP3201

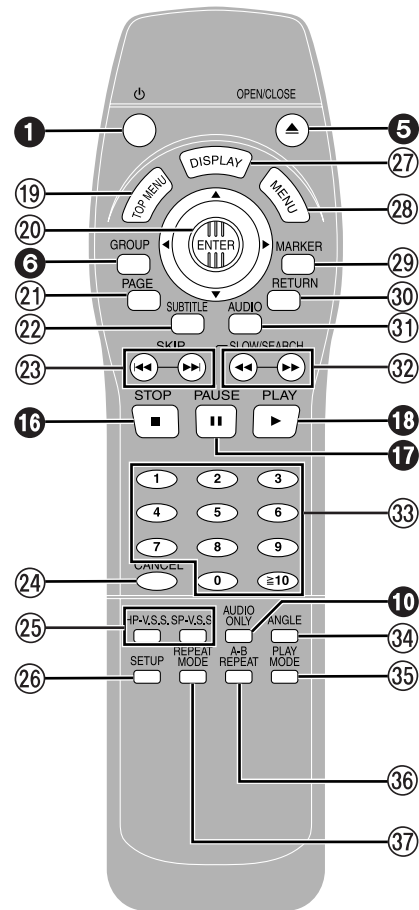
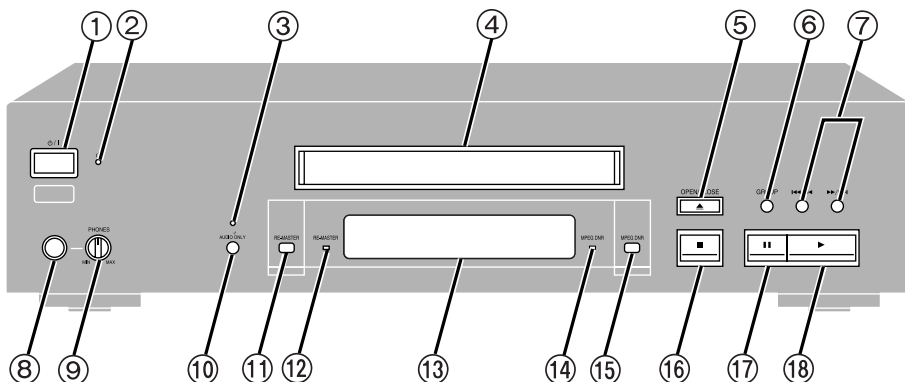
Y	10
VGND	9
C	8
VGND	7
Y/G	6
VGND	5
PB/CB/R	4
VGND	3
PR/CR/R	2
VGND	1



← VIDEO SIGNAL PATH
← AUDIO SIGNAL PATH

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING
FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN
IN THE PARTS LIST. AND MAY BE SLIGHTLY DIFFERNT
OR AMENDED SINCE THIS DRAWING WAS PREPARED.



Main unit

① Standby/on switch (⏻/⏻)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

② Standby indicator (⏻)

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

③ AUDIO ONLY indicator

④ Disc tray

⑤ Disc tray open/close button (▲, OPEN/CLOSE)

⑥ GROUP button (GROUP)

⑦ Skip/Search buttons (◀◀/◀, ▶/▶▶)

⑧ Headphone jack

⑨ Headphone level control (PHONES)

⑩ AUDIO ONLY button (AUDIO ONLY)

⑪ RE-MASTER button (RE-MASTER)

⑫ RE-MASTER indicator (RE-MASTER)

⑬ Display

⑭ MPEG DNR indicator (MPEG DNR)

⑮ MPEG DNR button (MPEG DNR)

⑯ Stop button (■)

⑰ Pause button (⏸)

⑱ Play button (▶)

Remote control

Buttons such as ❶ function the same as the controls on the unit.

⑲ Top menu button (TOP MENU)

⑳ Joystick (▲, ▼, ◀, ▶)/Enter button (ENTER)

㉑ Page button (PAGE)

㉒ Subtitle button (SUBTITLE)

㉓ Skip buttons (◀◀, ▶▶ SKIP)

㉔ Cancel button (CANCEL)

㉕ Headphone and Speaker V.S.S. buttons (HP-V.S.S./SP-V.S.S.)

㉖ Setup button (SETUP)

㉗ Display button (DISPLAY)

㉘ Menu button (MENU)

㉙ Marker button (MARKER)

㉚ Return button (RETURN)

㉛ Audio button (AUDIO)

㉜ Slow/Search buttons (◀◀, ▶▶ SLOW/SEARCH)

㉝ Numbered buttons (1–9, 0, ≧10)

㉞ Angle button (ANGLE)

㉟ Play mode button (PLAY MODE)

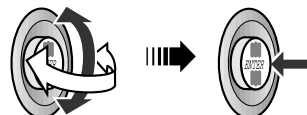
㊱ A-B repeat button (A-B REPEAT)

㊲ Repeat mode button (REPEAT MODE)

a How to operate the joystick

1. Push it up and down, left and right.

2. Press [ENTER].



[illegible]

Ref No. MODE	Q1021				Q1051					Q1052				Q1061				Q1062		
	1	2	3		1	2	3	4		E	C	B		1	2	3		1	2	3
STOP	-46.5	114.2	-46.8		5.2	4.1	-45.9	-36.2		-46.7	-46.9	-44.9		-46.6	-46.6	-46.2		-46.6	-34.5	-44.9
PLAY	-46.3	-64.5	-46.6		5.2	4.1	-45.9	-36.2		-46.7	-46.9	-46.7		-44.3	-46.4	-46.4		-	-38.5	-46.4
Ref No. MODE	Q1063				Q1115				Q1155											
	1	2	3		1	2	3		1	2	3									
STOP	-46.7	-46.7	-46.9		5.1	5.0	0		11.8	9.2	11.7									
PLAY	-46.7	-46.9	-46.9		5.1	0	0		0	0	0									

[illegible]

Ref No.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	3.3	3.3	0	3.3	3.3	0	0	1.9	2.3	2.2	2.2	2.3	2.4	2.3	2.2	2.4	1.8	0	1.8
PLAY	0	3.3	3.3	0	3.3	3.3	0	0	1.9	2.1	0	0	0	0	3.3	1.8	2.2	1.8	0	1.8
Ref No.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.3	2.2	3.0	2.5	3.0	2.6	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2
PLAY	0	1.9	2.0	2.7	2.2	2.6	2.6	1.7	2.5	1.4	3.3	0	3.3	3.3	3.3	3.3	2.8	2.8	2.7	2.7
Ref No.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.2	3.2	3.2	2.0	1.5	0	3.2	0	3.3	3.3	3.3	0	0	0	3.3	3.3	3.3	1.8	0	0
PLAY	2.6	2.7	2.6	2.6	1.5	0	3.2	0	3.3	3.3	0	0	0	0	3.3	0	3.3	1.8	0	0
Ref No.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.2	3.3	0	0	1.8	2.0	1.6	1.6	3.3	0	0	0	3.3	3.3	0	1.8	0	3.3	1.5	1.5
PLAY	3.2	3.3	3.3	0	2.1	1.0	1.6	2.2	1.3	3.3	3.3	0	3.3	3.3	0	1.8	0	3.3	1.5	1.5
Ref No.	IC2001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	1.6	0	1.7	1.7	3.3	0	1.6	1.6	0	0	0	1.7	1.6	1.4	1.6	3.3	1.4
PLAY	0	0	0	1.6	0	1.7	1.7	3.3	0	1.6	1.6	0	0	0	1.7	1.6	1.4	1.6	3.3	1.4
Ref No.	IC2001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	1.4	0	1.5	2.1	2.8	1.7	1.6	1.5	3.3	1.6	1.6	2.7	0	1.7	1.7	3.3	1.7	1.6	1.7	1.7
PLAY	1.4	0	1.5	2.1	2.8	1.7	1.6	1.5	3.3	1.6	1.6	2.2	0	1.7	1.7	3.3	1.7	1.6	2.1	2.5
Ref No.	IC2001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
STOP	2.3	1.7	1.7	0	3.3	0	1.2	1.3	1.3	1.3	3.3	3.3	0	3.3	3.3	1.7	3.3	0	3.3	0
PLAY	2.1	1.7	1.7	0	3.3	0	1.4	1.3	1.3	1.3	3.3	3.3	0	3.3	3.3	1.7	3.3	0	3.3	0
Ref No.	IC2001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
STOP	0	3.3	3.3	0	0	1.6	3.3	3.3	0	0	3.3	1.8	0	0	0	3.3	0	0	0	3.3
PLAY	0.4	3.3	3.3	0	0	1.6	3.3	3.3	0.9	0	0.6	1.8	0	0	0	3.3	0	1.0	0	0.9
Ref No.	IC2001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176				
STOP	0	3.3	0	0	0	3.3	0	3.3	3.3	0	0	0	0	3.3	3.3	3.3				
PLAY	0	3.3	0	0.8	0	0.7	0	1.0	3.3	0	0	0.8	0	3.3	3.3	3.3				
Ref No.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	1.7	1.7	1.7	1.7	1.7	0.1	0	5.0	0	0	2.9	2.9	2.9	2.9	4.4	4.4	4.4	4.4	0	3.1
PLAY	1.7	1.7	1.7	1.7	1.7	0.1	0	5.0	3.3	0	2.9	2.9	2.9	2.9	3.6	4.4	5.9	2.5	0	3.1
Ref No.	IC2501																			
MODE	21	22	23	24	25	26	27	28												
STOP	9.2	9.2	1.7	1.6	1.6	1.7	0	3.1												
PLAY	9.2	9.2	1.9	1.6	1.6	1.7	3.3	3.1												
Ref No.	IC2502																			
MODE	1	2	3	4	5															
STOP	1.7	1.7	0	0	4.9															
PLAY	1.7	1.7	0	0	4.9															

[illegible]

Ref No. MODE	IC1121																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.3	0	2.4	2.4	1.8	1.3	0	0.6	3.0	2.4	1.9	5.0	3.4	3.5	4.1	2.0	0	0	4.0	4.9
PLAY	2.3	0	2.4	2.4	1.8	1.3	0	0.6	3.0	2.4	1.9	5.0	3.4	3.5	4.1	1.8	0	0	4.0	4.9
Ref No. MODE	IC1121																			
	21	22																		
STOP	4.9	5.0																		
PLAY	4.9	5.0																		
Ref No. MODE	IC3531																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.1	0	2.4	4.9	2.1	4.9	2.1	4.9	2.0	0	2.0	2.0	0	2.4	4.9	2.1	1.6	0	2.0	1.7
PLAY	2.1	0	2.4	4.9	2.1	4.9	2.1	4.9	2.0	0	2.0	2.0	0	2.4	4.9	2.3	1.6	0	2.3	1.7
Ref No. MODE	IC3531																			
	21	22																		
STOP	0	0																		
PLAY	0	0																		
Ref No. MODE	IC3581																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0.6	0	0.9	0	0	0.9	0	2.7	2.8	0	2.7	2.8	1.9	2.0	4.9				
PLAY	0	0.6	0	0.9	0	0	0.9	0	2.7	2.8	0	2.7	2.8	2.2	2.2	4.9				
Ref No. MODE	IC4301									IC4302										
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
STOP	0	0	0	-8.2	0	0	0	8.4		0	0	0	-8.2	0	0	0	8.4			
PLAY	0	0	0	-8.2	0	0	0	8.4		0	0	0	-8.2	0	0	0	8.4			

[illegible]

Ref No. MODE		IC3801																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP		3.0	12.0	9.8	12.0	4.9	5.6	5.6	0	0	5.6	11.3	5.6	5.2	5.6	3.8	5.6	0	0	0	5.6
PLAY		3.5	12.0	9.8	12.0	9.3	5.6	5.6	5.6	0	5.6	11.3	5.6	5.2	5.6	3.8	5.6	0	0	0	5.6
Ref No. MODE		IC3801																			
		21	22	23	24	25	26	27	28	29	30	31	32	33	34						
STOP		5.7	5.7	5.6	5.6	5.7	5.7	5.6	4.1	4.4	4.4	2.8	3.1	3.1	0						
PLAY		5.7	5.7	5.6	5.6	5.7	57	5.6	4.1	9.0	9.0	2.8	3.1	3.1	0						
Ref No. MODE		IC3851																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP		0	0.7	0.8	0.8	0.8	0	0	0	5.2	5.2	5.2	0.7	0	0	0	5.2				
PLAY		0	0.7	0.8	0.8	0.8	0	0	0	5.2	5.2	5.2	0.7	0	0	0	5.2				
Ref No. MODE		IC3852																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP		0	0.7	0.8	0.8	0.8	0	0	0	5.0	5.0	5.0	0.7	0	0	0	5.2				
PLAY		0	0.7	0.8	0.8	0.8	0	0	0	5.0	5.0	5.0	0.7	0	0	0	5.2				
Ref No. MODE		IC3853																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP		3.8	0	0	0	0	0	0.8	0	2.9	3.1	0	2.9	3.1	2.9	3.1	5.2				
PLAY		3.8	0	0	0	0	0	0.8	0	2.9	3.1	0	2.9	3.1	2.9	3.1	5.2				
Ref No. MODE		IC3891																			
		1	2	3	4	5															
STOP		12.5	12.5	12.0	0	0															
PLAY		12.5	12.5	12.0	0	0															
Ref No. MODE		Q3831								Q3832											
		1	2	3	4	5	6			1	2	3	4	5	6						
STOP		0	5.0	5.2	0	5.2	5.2			0	5.0	0	0	0	0						
	PLAY	0	5.0	5.2	0	5.2	5.2			0	5.0	0	0	0	0						